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A GEOLOGICAL and TOPOGRAPHICAL HISTORY of ORANGE COUNTY, *New-York*, by Dr. DAVID R. ARNELL; drawn up for the State Medical Society, and communicated to the Editors by the President.

## TOPOGRAPHICAL.

*Boundaries.* **T**HE county of Orange, in the State of New-York, is bounded on the south by the line of the state of New-Jersey; on the west by the river Delaware; on the north by the line of Ulster county; and on the east by the river Hudson.

*Description.* The greater part of the county of Orange may be described as a large valley, lying between the Kittatinny or Shawangunk mountain, on the north and west, and the Skunemanque and Sterling mountains, on the south; being a distance of about twenty-four miles between the mountains; and although it is so well defended on each side, with such high and lofty mountains, the valley, if it may be so called, is very uneven, and many large and profitable streams pass through the country, all of which empty into the Hudson river, and running such a course as shews the general elevation of the surface to be towards the south-west, and its declination to the north-east.

*Creeks and Streams of Water.* The Shawangunk Kill rises in the town of Minisink, near the foot of the Shawangunk mountains, and passes along the foot of the mountain until it leaves the county of Orange, after which it empties into the Wallkill.

The Wallkill rises in the county of Sussex and State of New-Jersey, and passes through the Great Drowned lands, and nearly through the middle of Orange county, and a part of Ulster, until it discharges into the Hudson, a few miles

below Kingston. The elevation of the country is so small, that these streams pass very slowly through it.

Murderers creek rises in the town of Southfield, and passing through a part of the towns of Warwick, Goshen, Blooming Grove and Cornwall empties into the Hudson at Cornwall landing. The current of this stream, in many places, is much more rapid than either of the two first mentioned. There are several smaller streams, all of which, I believe, empty into one or other of those above described, before they pass into the Hudson.

*Lakes.* There are no considerable lakes or ponds of fresh water in the county, except the Great Drowned lands, which contain about fifty thousand acres, all of which are generally overflowed in the Spring, and by heavy rains at any season of the year. An act was passed before the late war, enabling the proprietors of those lands to drain them. An attempt was then made, and about two thousand pounds expended, at the Outlet of the Wallkill; but the Revolution coming on, put a stop to their labours. Nothing has been done since that time, until the last year, when a Company was incorporated for the purpose of draining them. They began their operations last Summer, and if they should ever be completed, they will be an inexhaustible source of wealth to the proprietors, and an amazing advantage to the health of the country round about the Drowned Lands.

*Soil and Productions.* The soil of Orange county may be described as of two kinds; a wet clayey soil, mixed with small stones, and a gravelly loam. There is very little, if any, of a sandy soil in the county; it is very friendly to vegetation, and produces grass in abundance; there are many places which were considered formerly, as low sunken holes of no value, which, within a few years past, have been cleared and drained, and are now very productive of corn and hemp. Great crops of wheat were formerly raised, but lately the farmers have, generally, turned their attention to making butter; of which the county of Orange boasts a superiority over every other county in the State. A further description will be unnecessary for our present purpose.

#### GEOLOGICAL.

A particular Geological History of this county cannot be expected from one who is constantly engaged in the practice of Medicine, as I have been. It would require much more

time than I can sacrifice, to make exact and very particular observations on every part of the county. A general history, therefore, is all that must be expected.

*Fossils.* The southern part of Orange county consists of large tracts of Granite mountains. In these mountains iron ore abounds, out of which several forges and two furnaces are constantly supplied.

The middle part of the county is mostly a bed of Shistus; this predominates, and appears to underlay the greater part of the county, from the foot of the Skunemanque to the Shawangunk mountain, near the centre of which runs the Wallkill, over its slaty bed. The stones, which are on the surface, are mostly a mixture of feldspath, schoerl, granite, calcareous spar and schistus; the predominance of one or the other giving different colours and shapes to the stones. In the town of Warwick is a large bed of calcareous spar, which, when first discovered, was thought to be equal to the imported gypsum, for manuring lands; hundreds of loads were taken away and ground for that purpose, but experience proved it to be of no service in that respect. The proprietors, however, have lately turned their attention to burning it into lime, which is said to be nearly, if not quite equal to the Rhode-Island shell lime. Large bodies of the common calcareous stone are found in the towns of Wallkill, Minisink, Montgomery, Newburgh, and New-Windsor.

That part of the Kittatinny or Shawangunk mountain, which passes through the county of Orange, consists at the top of finely granulated quartz, and as it passes into Ulster county becomes coarser grained, until it forms that species of which the Esopus millstone is made, which is the arid quartz of Kirwan.

Much has been said and written on the large fossil bones which have been dug up from the Marl pits in Orange county. I have visited some of the places where they were procured, and seen several of the bones. They were discovered in low sunken places, very wet and miry, and lay buried about ten feet under the surface; the earth and marl appear to consist of four different strata; first, the common earth found in low meadows, which is very black and rich; 2nd, a stratum of blue clay; 3d, a stratum of white marl, and 4th, a stratum of grey marl. The places where they have been discovered are well described by Doctor Graham, in the 4th volume of the Medical Repository, except two places, on the farm of Thomas Booth, in the town of Wallkill,

where they have since been discovered, within about six feet of the surface, lying about four miles south from Wards-bridge; which is a corroborative proof of Dr. Graham's opinion, that Mammoths must once have existed in large numbers in this county.

*Medicinal and Mineral Springs.* On a mountain, near Newburgh, is a Mineral Spring, whose waters create sickness and nausea, and are said to be tinged with copper. Flames have been frequently seen issuing from the earth near this spring.

On the farm belonging to Dr. Moses Higby, about two miles and an half from the village of Newburgh, is a Mineral Spring, which has been much resorted to the last year. This Spring is situated in a low meadow, on the west side of Snake-hill, which is a large mass of calcareous rocks, about two miles from the river Hudson. This water, when first taken, appears clear and transparent; it possesses a strongly sulphureous smell, and a nauseous, sulphureous and somewhat saline taste: in a few hours of exposure, it loses its transparency, and becomes turbid and blackish to the eye: its sulphureous smell abates and a blackish sediment is deposited. The waters have never been chemically analyzed, but I believe if that was done, the products would shew carbonic acid, sulphurated hydrogen, and azotic gas: what proportion one would bear to the other, I cannot tell; it appears to agree with the sulphureous springs of Harrowgate; it has been thought serviceable in herpetic eruptions, and some chronic complaints.

There is a well on the farm of George Clinton, jun. Esq. in the town of New-Windsor, whose waters are nauseating, and if taken in any quantity prove violently emetic: it possesses a strong sulphureous smell.

On the top of Shawangunk mountain, in the town of Minisink, there is a spring whose waters are impregnated with iron, and which have been thought serviceable in some chronic diseases.

There are several other springs in Orange county, which were once thought to possess medicinal qualities, but which unhappily lost their virtues almost as soon as discovered.

*Medicinal Plants, Shrubs and Trees.* Anethum, angelica archangelica, artemisia, absinthium, arum triphyllum, aristolochia serpentaria, acorus calamus, cephaelis ipecacuanha, cornus florida, centaurea benedicta, dulcamara, eupatorium,

fœniculum, inula helenium, iris pseudacorus, liquidambar, liriodendron, malva sylvestris, marrubium vulgare, melissa, hyosciamus niger, oxalis\* acetosella, mentha sativa et piperitis, panax quinquefolium, prunus virginiana, podophyllum peltatum, phytolacca decandria, pulegium, ranunculus sceleratus, polygala senega, ruta graveolens, stramonium, sisymbrium nasturtium, sambucus niger, sinapi, smilax sarsaparilla, sassafras, tussilago farfara, tanacetum, ulmus.

*Meloe Clematidis.* Insecta.—Coleoptera—Vesicantia. *Lytta Vittata*; Fabricius. *Cantharis Vittata*, Olivier.

Several species of the Genus *Lytta*, are found in Orange county, and are deserving the attention of physicians generally, for their epispastic properties.

*Diseases.* The village of Scotch Town, which is my present place of residence, lies in the town of Wallkill, about seven miles north-west from Goshen, and four miles north from the Wallkill river, on an elevated situation, commanding a prospect of both the Skunemanque and Shawangunk mountains. The country along the Kill is very flat and level, and the Kill runs very slowly through it. In the autumn, the tertian intermittent, remittent and typhus fevers generally prevail in a great degree. During the course of the last spring, pleurisies, pneumonias, and inflammatory complaints were very rife, but they almost entirely disappeared by the middle of April. The subjoined catalogue of new cases to which I was called, annexed to my meteorological and thermometrical observations, will shew the prevalence of diseases since that period.

In the autumn, instead of the usual forms of fever which had prevailed, the influenza made its appearance. The first cases which I saw of it, were on the 5th day of August. Mr. James Clark and his family, consisting of five beside himself, were all attacked with it in the course of one night. They were taken with cold chills, hoarseness, pain in the head and breast, or side, which was soon succeeded by thirst, fever, dry tongue, coryza and a defluxion from the nose. I was at once convinced of their disease, though I had not heard of its prevalence through the country. In my gene-

\* The expressed juice of the oxalis acetosella, or common sour sorrel made into an extract by drying in the sun, has long been held as a secret by a family in this county, for curing cancers. Thus prepared, it makes a concentrated oxalic acid, and upon sound principles I believe it may be sometimes useful. I think I have seen good effects produced by it more than once.

ral treatment of this disease, I was guided by those principles which I have long since adopted, of levelling my prescriptions to the excitement of the system; and finding a full hard pulse, I immediately had recourse to the lancet; after which I generally gave a cathartic, and ordered tepid mucilaginous drinks. If this practice did not succeed, I bled a second time and gave another cathartic, but my main dependence was my lancet, and I am happy to say it has not in one instance deceived me. Not one of my patients but recovered very rapidly, and not one case has terminated in a pulmonary consumption, or any other disorder which appeared to be induced by the influenza. As near as I could compute, about one in three required bleeding once, one in eight, twice, and one in fifteen, three times: a few required it oftener: one who appeared to be fast advancing towards a consumption, I bled six times, and now have the happiness to see him a healthy, respectable and useful citizen.

The influenza prevailed so generally through the State, that I thought it quite unnecessary to give a more particular history of the symptoms attending the disease than I have done: there was a remarkable uniformity in almost every case which I saw. A valuable communication on this disease has been presented to the College of Physicians and Surgeons in the city of New-York, by Jacob V. Brower, M. D. which will undoubtedly be published. I have given the treatment which I generally made use of, and although it may appear simple, it was very successful.

I would further remark, that our county is generally affected with pleurisies, pulmonic and inflammatory disorders in the latter part of the winter, and the spring: and along the Wallkill and Otterkill, or Murderers creek, the tertian, intermittent and remittent fevers prevail to a great degree in the fall of the year; but along that part of Murderers creek, where the waters are most stagnant, and on the west side of the Drowned Lands, they put on a more dangerous and formidable appearance than they do in other parts of the county.

I have nothing more to add on the history of diseases, but what may be found in my table before referred to; and have only to make this general observation, that I have not been able to bestow that time and reflection upon the subject which it required, and should not have presented this, in its present imperfect form, to the society, had it not been a duty imposed upon me by the bye-laws.

*Jan. 20, 1808.*

*Meteorological and Thermometrical observations made at Scotch Town, Orange county, from the 15th day of May to the 26th October, 1807.*

Day of the month.	Thermo- meter.		Winds.	Diseases.	Weather.
	6	2			
May 15	56	68	S.	Remit. Intermit. fever.	Flying clouds. Clear.
16	56	68	Calm.	Pleurify. Synochus.	Clear. Cloudy.
17	45	46	N. E.	Cephalœa.	Rain. Cloudy.
18	42	48	N.	Hysteria.	Clear. Flying clouds.
19	40	57	W.	Hysteria.	Clear.
20	48	64	S. W.	Scrophula.	Clear. Between 7 and 8 o'clock, P. M. a me- teor of remarkable size was seen to shoot in the N. W. leaving a long fiery tract behind, which was seen some minutes after the me- teor disappeared.
21	48	66	S.	Amenorrhœa.	Clear. Hazy.
22	52	68	W.	Pleurify.	Cloudy. Shower. Clear.
23	53	67	W.	Cholic.	Clear. Hazy.
24	46	60	N. E.	Cholera Infantum.	Rain. Clear. Showers.
25	47	60	N. W.	Pleurify. Otalgia.	Flying clouds. Wind high. Clear.
26	48	68	S.	Remittent fever. Pleurify.	Cloudy. Clear. Cloudy.
27	49	69	W, & S.	Mania. Abortion.	Flying clouds. Showers. Clear. About 10 o'clock P. M. a meteor fell in the east with amazing velocity, often casting off fragments of fire, which being left by the mass, appeared to re- main fixed, scintillating until the whole disap- peared.
28	46	66	W.	Rheumatism. Catarrh.	Cloudy.
29	49	69	S.	Odontalgia. Catarrh.	Clear.
30	52	78	S. W.	Nephritis.	Clear.
31	76	48	sw & n e	Parturition.	Hazy. Rain.
June 1	44	48	N. E.	Intermittent fever.	Rain.
2	53	63	S. W.	do. do.	Cloudy. Clear.
3	67	71	S. W.	Pneumonia. Dyspepsia.	Clear.
4	62	66	S. W.	Cholic. Cyn. Tonfilaris.	Hazy. Clear. Showers.
5	63	66	S. E.	Pleurify. Worms.	Hazy. Heavy showers. Rain.
6	56	60	S.	Synocha.	Rain. Cloudy. Thun- der showers.
7	62	72	W.	Tertian fever. Pneumonia	Clear.
8	62	79	S. W.	Lumbago.	Hazy. Clear. Wind changed to N.
9	62	76	S. W.	Intermittent fever.	Clear. Hazy.

Day of the month.	Thermo- meter.		Winds.	Diseases.	Weather.
	6	2			
June 10	64	75	W.	Cholera Infantum.	cloudy.
11	56	69	N. W.	Epilepsy.*	hazy. clear. wind high.
12	50	52	N. W.	Parturition.	cloudy. rain.
13	48	53	N. E.	Tertian fever.	rain. cloudy.
14	54	60	N.	Cephalœa. Parturition.	clear.
15	58	74	W.	Amenorrhea.	clear. cloudy.
16	50	76	S. W.	Quartan fever.	clear. cloudy. thunder showers.
17	54	72	S.	Cephalœa.	clear.
18	54	56	S. E.	Otalgia. Parturition.	cloudy. showers. clear.
19	52	68	E.	Phrenitis. Tertian fever.	clear. flying clouds.
20	54	70	W.	Hysteria.	clear.
21	56	75	S.	Paronychia.	clear.
22	62	78	S. W.	Puerperal fever.	clear. cloudy. clear.
23	58	67	E.	Tertian. Debility.	cloudy. clear.
24	52	53	N. E.	Hysteria. Pneumonia.	cloudy. rain.
25	48	63	N. E.	Debility. Odontalgia.	cloudy.
26	54	72	W.	Intermittent fever.	clear. very pleasant.
27	56	70	S.	do. do.	clear. hazy, cloudy.
28	56	70	N. E.	Chol. Inf. Amenorrhea.	rain. flying clouds.
29	58	73	W.	Colic. Scrophula. Cephal.	showers. clear.
30	58	70	W.	Lumbago. Abortion. Hæmatemesis. Puer- peral fever.	cloudy. clear. showers.
July 1	54	69	N. W.	Tertian. Incubus.	clear.
2	54	70	calm.	Pleurisy 2. Pregnancy.	clear.
3	56	69	S.	Odontalgia. Ebrietas.	clear. hazy.
4	58	70	W.	Cholera Infantum.	flying clouds.
5	56	70	S.	Worms.	shower. cloudy. clear
6	55	70	S.	Puerperal. Intermit. fev.	clear.
7	57	75	E.	Expectoratio calida.	clear.
8	60	66	S. E.	Chronic rheumatism.	showers. cloudy.
9	60	70	W.	Pleurisy. Distorted spine.	cloudy.
10	62	79	W.	Tertian fev. Pregnancy.	cloudy.
11	61	79	W.	Remittent fever.	cloudy.
12	65	78	S. W.	Worms. Tertian fever.	foggy. clear. fresh breeze
13	65	75	S. S. E.	Parturition. Colic. Hys- teria.	cloudy. heavy thunder showers.
14	58	67	N. E.	Intermit. fevers 2. Colic.	clear. hazy. clear.
15	59	71	S. W.	do. do. Hysteria.	cloudy. clear.
16	65	70	S.	Sphacelus Scroti. Preg.	clear showers. clear.
17	60	79	variable.	Pleurisy. Burn.	clear. showers. clear.
18	65	76	W.	Cephalœa.	clear.
19	65	76	S. W.	Dysentery. Inter. fever.	cloudy. light showers.
20	64	70	W.	Intermittent fever.	cloudy, showers in the night.
21	62	72	N.	Cachexy. Dyspepsia.	foggy. clear.
22	65	76	W.	Fractured skull.	cloudy. clear. showers.

\* It may not be improper to remark, that I have, in two instances the last summer, cured the Epilepsy with the Acetate of Lead and Sal Martis.

Day of the month.	Thermo- meter. 6 2	Winds.	Diseases.	Weather.
July 23	63 75	W.	Odontalgia.	cloudy. showers clear.
24	61 77	N. W.	Puerperal fever.	clear. hazy. clear.
25	64 77	calm.	Colic. Parturition.	hazy. wind S. shower.
26	60 78	E.	Expectoratio calida.	clear.
27	66 76	S. E.	Intermittent fever.	clear. cloudy.
28	64 77	S.	Dropsy.	rain. clear.
29	56 68	W.	Synocha.	clear. showers. clear.
30	54 68	W.	Puerperal fever.	clear. flying clouds.
31	56 82	W.		clear. cloudy.
Aug. 1	53 72	S. E.	Colic. Pregnancy.	clear.
2	59 74	S.	Ophthalmia.	hazy. clear, thunder showers.
3	62 72	E.	Cephalœa.	cloudy. rain.
4	60 73	W.		rain. clear.
5	58 72	S. E.	6 cases of Influenza.	clear. pleasant.
6	60 72	N.	4 cases of Intermit. fever.	clear. showers.
7	61 74	S. W.	Influenza.	flying clouds.
8	59 75	variable.	Intermittent fever.	cloudy. rain.
9	58 76	W.	Influenza.	clear. hazy.
10	62 77	W.	do.	clear. flying clouds.
11	58 69	S. W.	do. Rheumatism.	heavy showers. clear.
12	57 68	calm.	do. Colic.	cloudy. showers.
13	56 65	N. E.	do.	cloudy. rain.
14	57 63	N. E.	do. Worms. Partur.	cloudy. rain. showers.
15	61 73	S. W.	do. Phthisis pulmon. Parturition.	cloudy. clear.
16	60 75	S. W.	do. Remittent fever.	clear. hazy.
17	62 76	W.	do. Colic. Convul.	clear.
18	58 72	N. W.	do. Hæmoptoe. Worms.	hazy.
19	58 72	S. W.	do. Remittent fever.	clear.
20	60 71	N. W.	do. Intermit. Colic. Erysipelas.	foggy. clear, cloudy.
21	62 71	S. W.	do. 3 Intermit. Di- arrhœa. Partur.	cloudy.
22	60 68	W.	do. Pleurisy, 3 cases. Puerperal fever.	cloudy.
23	52 62	W.	do. Pleurisy. Me- norrhœa.	clear.
24	48 64	N. W.	do. Diarrhœa. Partu.	clear.
25	55 68	S. W.	do. Worms. Dyspep.	hazy. clear.
26	58 72	S. W.	do. Rheumatism. Asthma Opthal.	hazy. clear.
27	60 74	W. & S.	do. several cases.	clear.
28	61 75	N. W.	do. do.	rain. flying clouds.
29	63 71	N. E.	do. Pleurisy.	cloudy. clear.
30	62 75	S.	do. do. Intermit.	clear.
31	60 *	W.	do. do. 2 cases. Erysipelas.	clouds. showers. hail.
Sept. 1	62 *	N. W.	do. Puerperal. Inter- mittent fevers.	clear.
2	53 63	W.	do. Pleurisy. Erysi- pelas Intermit.	clear. rain.
3	60 70	W.	Cholera Infant. Rheu- matism.	clear. flying clouds.

\* Thermometer unobserved.

Day of the month.	Thermo- meter.		Winds.	Diseases.	Weather.
	6	2			
Sept. 4	58	68	S. W.	Intermit. fever. Pleurisy.	clear. showers.
5	56	66	W.	Influenza. Pleur. Colic.	clear. thunder showers.
6	58	71	S.	do. Chol. Inf. Otagia.	clear, flying clouds.
7	52	70	W.	Parturition. Pleurisy.	clear.
8	52	56	N. E.	Influenza very prevalent,	rain, flying clouds.
9	53	57	N. W.	though still decreasing.	clear.
10	48	59	S. W.	Remittent fever.	clear.
11	52	64	W.	do. do.	clear.
12	56	69	S. W.	do. do.	clear.
13	55	69	W.	Colic.	flying clouds. wind high.
14	50	58	N. W.	Tabes Mesenterica.	thunder showers in the night.
15	49	58	N. W.	Pleurisy. Cephalæa.	flying clouds.
16	48	57	N. W.	Hysteria. Parturition	do. wind high.
17	50	58	calm.	Dropfy. Cephalæa.	hazy. cloudy.
18	48	65	N. W.	Hooping Cough prev.	clear.
19	50	68	W.	Influenza decreases fast.	cloudy. showers, some thunder.
20	50	69	W.	Colic, 2 cafes.	clear. flying clouds.
21	48	69	N. W.	Remittent fever, 2 cafes.	clear.
22	48	69	N.	Injury by a fall.	clear. frost this morning.
23	48	64	N.	Diaphragmitis.	clear. flying clouds.
24	48	62	W.	Parturition.	clear.
25	49	63	W. & S.	Phrenitis. Dysentery.	cloudy. clear. for several evenings a comet has been visible in the wes- tern part of the hea- vens; it can be seen with the naked eye. It is passing through the constellation of the vir- gin, is receding from the sun, and is called a bear- ded comet. The distance between the comet and arcturus is 33°. 30'', and the distance between the comet and lyra 69°. 30''. Observation made this day.
26	51	65	S.		clear.
27	50	62	S.	Phrenitis.	clear.
28	51	64	S. W.	Hooping Cough prev.	cloudy. clear.
29	48	63	S.	Worms. Quinfy.	foggy. clear.
30	52	62	E.	Cyn. Tonfilaris. Colic.	cloudy. clear.
Oct. 1	52	62	N.	Odontalgia, 3 cafes.	clear. hazy. dew heavy.
2	53	56	N. W.	Worms.	cloudy. showers.
3	54	64	N. W.	Hysteria. Worms.	cloudy. clear.
4	53	52	N.	Lumbago.	cloudy. rain.
5	46	54	W.	Worms. Influenza 2 cafes.	cloudy.
6	33	53	W.		clear. hard frost.
7	33	61	W.	Worms.	clear. hoar frost.
8	40	61	N. W.	Colic.	clear. hazy.
9	49	66	S.		clear.
10	50	67	S.	Phthisis Pulmonalis.	clear.

Day of the month.	Thermo- meter.		Winds.	Diseases.	Weather.
	6	2			
Oct. 11	48	64	N.	Worms.	clear.
12	44	65	W.		clear.
13	46	64	S.	Remittent fever.	clear. hazy,
14	46	64	S. W.		clear.
15	48	64	S.	Leucorrhœa.	very smoky.
16	42	59	S. W.	Colic,	cloudy. smoky. rain.
17	45	50	E.		cloudy, smoky. showers.
18	50	54	S.	Cynanche Tonsillaris.	cloudy. thunder shower.
19	37	48	N. W.	Dysuria.	flying clouds. clear.
20	34	44	N. W.	Intermittent fever.	clear.
21	38	50	S. W.	Pleurisy. Influenza.	flying clouds. clear.
22	42	57	N. W.	Burn. Odontalgia.	light shower. clear.
23	32	50	N. W.	Cynanche Trachealis.	hard frost. clear,
24	40	54	S. W.	Last case I saw of Influenza this season.	flying clouds. clear.
25	37	58	W.	Pleurisy. Menorrhagia.	smoky. clear.
26	34	48	W.	Cholera Infantum.	flying clouds. hazy.

The thermometer was placed on the north side of the house, and the observations made at six o'clock in the morning and two in the afternoon; the wind and weather which were most prevalent through the course of the whole day, are noted. The diseases are arranged in the order in which I was called to visit the patients.

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CONSIDERATIONS *on the* ORIGIN, CAUSES *and* CHARACTER *of* YELLOW FEVER, *as it appears in the United States and West-Indies, by* Mr. JOHN RULE, Surgeon in the service *of the right honourable his Britannic majesty's post master general: addressed to the* EDITORS.

**I**N my visits to New-York, I beheld an active spirit of controversy pervade the minds and writings of your physicians, who divide themselves into two classes, as theorists, while their practice differs in nothing so materially as their able pens, so well exercised, might lead one to expect. While one party, in a masterly manner, maintain the importation of malignant diseases, and the other as ably support the principle of domestic origin, the treatment of those diseases seems to be in some measure overlooked.

I write this to inform you that there is a possibility of divesting (at least one of) these doctrines of prejudices, and deducing, from principle of theory, a method which leads to

a more rational practice—a practice more satisfactory from being successful, and reducible to cool argument.

I have long been convinced that the human frame may be compared to a piece of complex machinery, well arranged, with its several parts properly fitted together, and adapted to all the purposes of life and health; that, like such a machine, it is set in motion by the action of certain specific causes, whether external or internal, and continues the regular exercise and discharge of its functions, while unmolested by other agents; and that the moment any undue application is made, or any loss of necessary and essential parts takes place, the *whole* of the fabric suffers sensible derangement, the beauty and symmetry of its proportions are lost, and its motions are either materially accelerated, impeded, or altogether suspended.

Long had my mind taken a stand against the entire admission of the doctrine which maintains the universality of contagion. I had read in the works of the most celebrated authors, who espoused the doctrine concerning physicians, nurses, kindred, and others who visited the sick, and even concerning persons sleeping in the same room, and sometimes in the same bed, and yet escaping the infection, or being attacked with any other disease, while transient persons passing by the dwelling, touching any article of clothing or furniture belonging to the sick, (the simple circumstance of picking up a night-cap that had lain in the street for two or three days, not excepted) taking the disease, and dying of it.

The apparent want of stability in the reasoning, deduced from this terrifying and incoherent doctrine, I confess staggered my confidence, and emboldened me to think for myself. The much applauded vinegar of the four thieves lost in consequence, with me, most of the wonderful anti-pestilential virtues ascribed to it, in preference to common vinegar. I have, from an early period of my studies, held in disesteem the use of the whole tribe of *old women's* prophylactics. And only where putrefaction has rendered the air of a room so offensive as to make it impossible to remain long enough for the exercise of my duty, have I ever had recourse to any preventative means on my own personal account. Yet I should always, in all cases, and in every disease, recommend an unceasing attention to cleanliness and the free circulation of pure air; for, if there be a medium of communication, that medium is the air. This I do not deny; but I am persuaded that if contagion did exist, to the extent the advocates

for it seem to assign, we should have no means of escape: old and young—male and female—aborigines and strangers—the established occupant and itinerant sojourner—people in every situation in life—of all colours, constitutions and habits of living, would indiscriminately fall victims to contagion: the whole human race would be devoted, and it would cease but with human existence. This is giving scope to ideas! but I would ask of contagionists, what bounds they can set to its sweeping influence, without admitting a flaw in their theory?

On the other hand, anti-contagionists contend that diseases, however malignant, however prevailing, cannot be communicated but in certain morbid constitutions of the atmosphere. If this was correctly the case, the members of the medical profession, and the proficient in chemistry, would do well to separate themselves into two divisions; the latter to attend to the cure of the distempered atmosphere, and to prevent its being so highly vitiated, by adopting ventilation and purification; while the former class should continue their present occupations and practice.

We see how gradual are the revolutions of opinion. Formerly, to convey any trifling article of wearing apparel, furniture, or merchandize, was considered enough to propagate every species of pestilence, at any distance. On this belief, were founded absurd laws, enforcing long and rigorous quarantine. Next followed the importation of "plague and pestilence" through the medium of the human frame. On this the modern doctrine of contagion is established; its advocates have, however, departed not a little from the true terms of their text, and its tenets are made to give place to personal convenience. The opinion is not of very old date, that a person in health, coming in contact with the diseased, instantly became the vehicle of conveyance to others at a convenient distance, while themselves remained free of indisposition, but retaining, in some secret and unaccountable way, the germs of infection, which required the uncomfortable term of forty days for expelling. This miserable and superstitious mania had its fabric shaken by the force of reason; for according to this, the physician must be a greater plague than the disease. To get rid of this odium, the atmosphere (which pervades a great extent of space, and has no tongue but the bellowing of the tempest to speak its own defence) was impeached for the crime of conveying and propagating distempers; and even the advocates for the do-

mestic origin of pestilence, have joined in the weighty charge. What next follows? when the *first* cases of endemical fever cannot be traced to a foreign source, we are told, that "some how or other it *must* have been introduced from abroad;" while certain believers in domestic origin admit the existence of contagion, when they find several cases occurring at nearly the same time, and at some distance from each other, without reflecting for a moment on the possibility of the same cause producing disease in a variety of subjects at one time, all equally predisposed.

Where are the just grounds for disputes on mere matters of opinion? On this subject we find inoculation in theories! I could here dwell on the subject of quarantine, would it not too much lengthen this communication.

It is on all sides allowed, that in certain conditions of the atmosphere, the yellow and bilious fever is not communicable; and from this it is argued, that the disease exists *in* the air: while I am of opinion that the living body, from several causes, such as alterations in the mode of living, &c. especially among strangers and with the addition, in some instances and on ship-board, of the action of confined air and accumulated filth, is rendered susceptible of being diseased from slight causes. Diseases are readily induced in warm weather, when the great and sudden change of temperature gives what is commonly termed a cold, by checking the flow of perspirable matter; while the type of the malady is owing to the influence of climate: or why do we find provincial and local diseases, such as marsh fevers, &c.?

I have taken this ground, from my own opinion, matured by reflection and practice; I have taken this ground from the palpable errors of existing theories, which are too much expanded and directed by prejudices, which do not in the least embellish the reasonings of philosophy: for what benefit can we hope to reap from mere hypothesis, while we ought to expect the advantage of rational theory on which to found our opinions? I have taken this ground from a conviction of the errors so visible in the practice of the advocates of both doctrines; I have taken this ground, in consequence of long observation, which has proved to conviction that the yellow fever, well and deliberately considered, is *not* imported: nor is it of domestic origin to the extent of the opinions of the supporters of the doctrine; for I leave its origin out of the question as foreign to consideration in this stage of the enquiry: I have taken this ground, from consi-

dering this a febrile disease, receiving its type and malignity from certain induced idiosyncrasy in the patient's habit of body, aided by climate—else, why do we find the character of diseases, particularly this, vary with the situation?—And, I have taken this ground, from the knowledge of its prevailing and proving fatal in numerous instances, where to advance either the doctrine of importation or of atmospheric influence, would be equally absurd and impossible to be substantiated.

This requires proof—strong and uncontrovertible proof: such proof is easily obtained in sufficient abundance to satisfy the most sceptical and scrupulous. In the island of Jamaica, in the year 1793, the disease every where called yellow fever, prevailed throughout a great part of the interior, chiefly towards the north side. The same island, in the latter part of the year 1803 and early in 1804, was again visited by this disease, which carried off a great number of its inhabitants; commencing in the parishes of Vera and Clarendon, and extending quite across the island, in a direction directly against the wind. In the year 1798, it proceeded from Montego-Bay to Falmouth, and touching slightly at Rio-Bueno and Dry-Harbour, it proceeded to St. Ann's Bay, Port-Maria and Anatto-Bay, thence across by the course of the Wag-Water to Kingston, where it ceased after destroying the lives of hundreds. I shall leave it to a certain class of enquirers to account for this course of the disease; and ask them, how does it happen that the atmosphere possesses the power of conveying pestilential disease (or, as they term it, *vapour*) in a direction diametrically opposite to its own current?

Had my mind been fixed in the belief of contagious influence, it must have met an effectual check; for, to account for the rise of the fever in the close of 1803, according to either of the prevailing doctrines, would puzzle the ingenuity of any one. Conjecture cannot say from whom I became infected; and I do not know that any person laboured under malignant disease in any part of the island prior to my attack. My indisposition arose from excess of bodily exertion in prosecuting certain physical and chemical enquiries, about the first day in November, in date I believe the earliest of any case. I at that time resided on the borders of Milk-River, a distance of 26 miles from Old-Harbour, the nearest sea-port, which place, with its shipping, was free from sickness till a later date: from Kingston the distance is 52 miles; that city was also healthy at the time. My disease

commenced gradually and became highly inflammatory, ending in hepatitis, and my recovery was long despaired of. On the 6th December I caused myself to be removed to a more salubrious situation. On my way to the mountains, my first rest was at a distance of 10 miles, at an extensive sugar estate. Here the yellow fever prevailed, and after carrying off two Europeans, of short residence in the island, it extended across several chains of mountains through the parishes of Clarendon, St. John, &c. &c. If this be not thought sufficient to convince any one of the truth of the doctrine I have advanced, the case of yellow fever I have to relate will at least prove that I have more than conjecture on my side. This rests without the compass of any thing yet taken into consideration; it is a well defined case of *real* yellow fever, uninfectious and solitary, existing in the heart of a mountainous country, for salubrity equal to any in the intratropical regions. This case also proves how highly reprehensible it is to administer the cinchona while any of the febrile symptoms remain, as death in such cases is the only consequence to be expected from it. If this medicine could at all be given with propriety during this disease, it might have been expected to do good in the situation where this case occurred; whereas we find to the contrary, that about ℥ij. or 3j. of it nearly proved too much for the life of the patient, and it required great exertion to keep him from sinking under its effects.

The pressure of professional avocations at the time, rendered it impossible to take regular notes of the case, and I am compelled to have recourse to memory. But this case being sufficient to stamp an indelible impression on the mind of one who had before seen numberless cases of this disease in other situations, I have a true and distinct remembrance of it; and I can safely vouch for its authenticity.

Where mountains are piled in heaps over each other, as if they had been scared from the shores at the frightful phenomenon of an hurricane; on one of the most retired sugar estates in Clarendon, near the source of the Rio-Mino, and not within 36 miles of the nearest place of shipment, a young man had newly arrived from England, aged about 18 years, of plethoric temperament, and temperate in living. I was called to see him, and he was committed to my care. On my first visit I found him labouring under yellow fever, with all the characteristic symptoms well defined, but altered a little by the situation and surrounding country. I found it

necessary to alter the medicines prepared for him by my coadjutor *in practice*. On visiting my patient the next day, I was surprised to find him in a state threatening the approach of coma. Enquiring into the cause of this unexpected change, I learned that, in consequence of the many calls I had on my time, the manager had allowed the medical gentleman who had the care of the slaves on that estate, kindly to prescribe, and he had given my patient one paper of bark, rather more than 3 j. He had taken a second before I called. This gentleman was not versed in the treatment of yellow fever, having never seen West-India practice but in the mountains; and he was not aware of the real state of the patient, when he found his pulse almost natural, and the other delusive symptoms of *real* yellow fever in its second stage. I now had recourse to sinapisms applied to the soles of his feet, renewed the measures I had before adopted, and with much difficulty preserved his life. Had I not seen numerous cases of this disease before, I might have erred with that gentleman, and without knowing the cause, have wondered at the death of my patient.

I can and do fully appreciate the value of the bark, and wish it to be considered that it is only the abuse of it I reprehend. Would those who are compelled to have frequent recourse to it, be attentive to "time and circumstances," it is probable that the many advantages gained from it would be increased; whereas the random administration of any medicine cannot fail, in time, to bring it into disrepute. For cinchona, digitalis, and cicuta we have no adequate substitutes; yet, like states and empires, they have their respective duration. Cicuta, as valuable an article as is to be found in all the materia medica, was once in esteem; the value of it was generally known, and as generally was it employed—too much so for human good! physicians and apothecaries proclaimed its virtues aloud; which emboldened the incautious house-wife to give it to dangerous extent; and, the fall of its fame equalled its previous elevation. Doctor Stork, in his work on Hemlock, made a grand attempt to re-establish the character and use of this valuable plant, and the world knows how little success attended his laudable endeavours. Digitalis, equally valuable, has had its rise, but not all the good we have to expect from it hath yet been found; and the world is indebted to Doctor Beddoes for his able and successful endeavours to support its reputation. Notwithstanding the praise-worthy exertions of

that able physician, the character of this medicine, it is to be feared, is likely to meet the fate of the Cicuta. Some who administer this remedy, think not of combining adminicular medicine, but expect from it the Herculean work of removing complicated diseases. It is, besides, employed in a genus of disorders which cannot be expected to be removed by it; and failure must prove its disgrace. And have we not to expect a similar fate will attend abuse in administering Cinchona, if no distinction be made in cases of fever, and if this matchless article be exhibited to patients in the middle stage of *all* fevers? Such indiscrimination will assuredly depress its present exalted reputation, and future generations will have to deplore the rashness of their predecessors, in rejecting the most valuable medicines, and giving them the trouble of re-establishing their credit.

Of the various useful and necessary measures adopted by the proper authority for preserving the health of your fellow-citizens, one of great importance has been overlooked; the filling up of underground cellars: whether employed as dwellings or store-rooms, they are equally injurious to the public health.

I have to remark that my chief intention is to turn the minds of professional gentlemen from mere speculation to useful facts, from allowing the mind to be borne on the wings of fancy until it enters the intricate mazes of confusion, to improving the understanding by the contemplation of truths which are to be developed by cautious and practical investigation.

*Professor BAYLEY's Letter on the CROUP.*

(One of the most agreeable of our editorial functions, is to rescue valuable facts and works from oblivion, and to do justice to their authors. Our friend, the late Mr. Bayley, professor of surgery, and health-officer in New-York, was believed to have done service to the practice of physic by a small treatise on the Croup, which he published about the year 1781. After a long and fruitless search for one of the pamphlets, which it was our desire to reprint and incorporate in the Medical Repository, we had almost given it up in despair as a lost and irrecoverable piece; when fortunately Dr. D. W. Kissam, a favourite pupil of the deceased writer, furnished us with an almost entire copy; which, notwithstanding its defects, we commit to the faithful custody of our pages.)

*Extract of a letter from Daniel W. Kissam, physician at Huntington (L. L.) to Dr. Mitchill, dated January 10, 1809.*

Inclosed you have a copy of the material part of the Tract you enquired for. It contains the symptoms and treatment of the croup. You will please however to remark, that Mr. Bayley did not rest the whole of the cure on V. S. but administered calomel and emetic tartar pretty freely, at the same time, not neglecting the use of blisters. I have in many instances cured that disease with calomel and ipecacuanha. When fits of strangulation come on (which they do at intervals) I give a dose of the latter sufficient to puke two or three times, and of the former enough to keep the bowels open. I prefer the use of the ipecacuanha to emetic tartar on account of its action being more limited. In obstinate cases, I blister over the trachea and part of the chest, but rarely bleed, unless in very plethoric habits. The inclosed I obtained from Dr. Tredwell, sen. and am sorry I could not have sent it you sooner.

It may not be amiss to premise that the disease which is the subject of the following letter, has been distinguished by various appellations, viz.

By Dr. Home it is called—the Croup.

Cullen—Cynanche Trachealis.

Michaelis—Angina Polyposa vel Membranacea.

Bard—Angina Suffocativa.

Johnston, of Worcester—Angina Trachealis.

In New-England, and other parts of North-America—the bladder in the Throat.

\_\_\_\_\_ Suffocatio Stridula.

\_\_\_\_\_ Angina Infantum.

In Jersey and Pennsylvania—the Hives.

*To William Hunter, M. D. of London.*

SIR,

IF happily the following observations may suggest a successful mode of treating the Angina Trachealis, the author is persuaded that this letter will prove the most acceptable acknowledgement he can offer for the instructions you so generously bestowed upon him while a pupil at your theatre.

#### CASES, &c.

**T**HE first case of the *Angina Trachealis* which came under my inspection, was in April, 1774: the patient, a very fine boy, four years old, remarkably well made, though subject to the asthma: he was observed to droop several days previous to the application of his parents to me, and in the *night* his indisposition and cough affected him much more severely—on the one preceding my visit, he awoke several times, telling his mother that he must choak. A gentleman of the first reputation in medicine was immediately sent for; the utmost attention was paid to the child; he was bled, a large blister was applied to the throat, calomel and antiseptics were administered according to the prevailing mode of treating the complaint: the patient however died within thirty-six hours from the first fit of strangulation.

In the succeeding month, just such another exit happened, where early applications were made, and where the patient had every advantage which could be derived from medicine adapted to the *received opinion*, of the nature of this disease: on examination, the child's fauces were covered with an ash-coloured mucus of very little consistence, which, by applying the smallest force, could easily be removed: the *pendulous palate* when dismantled, appeared enlarged and of a *livid colour*; the fauces, when uncovered, seemed as if its vessels had been much distended with blood: when the wind-pipe was opened, there was found, diffused through its whole length, and entering the Bronchia, a membrane of a

whitish colour, of such tenacity as to require a considerable force to pull it asunder; after entering the Bronchia it changed its consistency and became a glary mucus.

Shortly after this dissection I was called in consultation with Dr. Van Vleck, to visit a child, which he informed me had been attacked three days before with the *putrid sore-throat*: the complaint had made great progress; the ulcers were large, and increased during a free use of the most powerful antiseptics. The patient died on the seventh day. During the last stages of this complaint, the child's breathing was very much interrupted, and in expiration the voice was very hoarse and loud, though the face was not swoln, nor the jugulars distended.

The parents obligingly permitted the child to be examined: the tonsils were totally destroyed, and the fauces were one continued ulcer; the pendulous palate was changed to a mere suspended slough, though the larynx and aspera arteria were free from every appearance of disease.

Reflecting on the manner of this child's death, and comparing its circumstances with the preceding cases, it appeared probable, that the nature of the Angina Trachealis had not been sufficiently investigated by practitioners, who may have mistaken the like instances of *hoarse noise* in the *putrid sore throat* for the louder hoarseness and *shrill voice*, which in a great measure is characteristic of the Angina Trachealis. The truth of this observation seems to be confirmed, when it is considered, that those persons, whose publications I have met with (except Doctors Bard and Home) who have made most mention of this disease, have not favoured us with any thing more than an *opinion* of its nature, without giving us corroborating proofs from *dissections*. The sudden death of many who have been affected with this complaint, added to the cases related by the gentlemen above-mentioned, convinced me that a more *determined mode* of treatment was absolutely necessary, in a disorder which appeared *altogether inflammatory*.

I shall here take the liberty of transcribing three dissections made by Dr. Bard. "Upon examining the body, which was done on the afternoon of the day she died, all the back parts of the throat, and the root of the tongue were found interspersed with sloughs, which still retained their whitish colour. Upon removing them, the parts underneath appeared rather pale than inflamed. No putrid smell could be perceived from them, nor was the corpse in the

least offensive. The œsophagus, or gullet, appeared as in a sound state. The epiglottis, which covers the wind-pipe, was a little inflamed, on its external surface, and on the inner side, together with the whole larynx, was covered with the same tough white sloughs, as the glands of the throat. The whole trachea quite down to its division in the lungs, was lined with an inspissated mucus, in form of a membrane, remarkably tough and firm; which when it came into the lungs, seemed to grow thin and disappear; it was so tough as to require no inconsiderable force to tear it, and came out whole from the trachea, which it left with much ease; and resembled more than any thing both in thickness and appearance, a sheath of thin shammy leather. The inner membrane of the trachea was slightly inflamed; the lungs too appeared inflamed, as in peripneumonic cases; particularly the right lobe, on which there were many large livid spots, though neither rotten nor offensive; and the left lobe had small black spots on it, resembling those marks left under the skin by gun-powder. Upon cutting into any of the larger spots, which appeared on the right lobe, a bloody sanies issued from them without frothing, whereas upon cutting those parts which appeared sound, a whitish froth, but slightly tinged with blood, followed the knife.

“The second dissection I attended, was of a child about seven years old, who had had all the symptoms with which this disease is commonly attended, except that in this case the glands of the throat, and upper parts of the wind-pipe, were found entirely free from any complaint, and the disease seemed to be confined to the trachea only, which was lined with this tough mucus, inspissated so as to resemble a membrane. We could trace it into the larger divisions of the trachea, and it was evident that the smallest branches were obstructed by it, for it was very observable, that upon opening the breast, the lungs did not collapse as much as is usual, but remained distended, and felt remarkably firm and heavy, as if they were stuffed with the same mucus.

“The last was a child of about three years old, who died in thirty-six hours after the difficult breathing first came on; yet even in this case, I discovered and shewed to several bystanders, the inspissated mucus which lined the trachea, and which was so remarkable as to be evident to all who saw it, that it must have been the cause of the child's death.”

Although these dissections were made during an epidemic constitution of the air, and at a season when the ulcerous sore-throat was very prevalent, we do not find mention made of an ulcer. The sloughs are not in consequence of diseased parts, but are parts newly formed from hardened mucus, or inspissated lymph, which were easily removed, and the membrane beneath was found entire. The hoarse sound, (with ill-scented breath) which in some instances attends the ulcerous sore-throat, will be found for the most part in those cases, which attack with some share of phlegmon, where the tonsils are in consequence enlarged, and the pendulous palate much tumefied: in this situation there will be a considerable collection of phlegm in the pharynx pressing upon the epiglottis and rimula of the larynx, whence will arise a partial difficulty in the air's passing to and from the lungs, with a quickened respiration and red cheeks, accompanied with more or less noise, according to the causes before-mentioned acting conjointly or separately.

In August, 1774, I was requested to visit a son of Mr. Flockard, a black-smith in this city. The boy was remarkably plethoric, short-necked, full-faced, of healthy parents, of a dark complexion, and had been but a few days before in perfect health. His difficulty of breathing, hoarse sound, and shrill voice did not admit the least doubt of the nature of the complaint: added to which, the child's face was more swelled than any I had before observed; his jugulars were become remarkably tumid, so as to admit the opening of one of them without using the least compression; the flow of blood was uncommonly rapid, and from the throbbing of the carotids, with the agitation of the child's chest, it bled per saltum. For a moment, I was apprehensive that an artery had been wounded; the child, as it was intended it should, bled *ad deliquium*: on recovering from this state, it puked a very great quantity of phlegm, some of it viscid, and some without consistence, but of a very offensive nature. His vomiting was encouraged with warm water, after which his breathing became less laborious; the noise accompanying it much abated, and the countenance remarkably changed for the better; a blister was immediately applied, covering the larynx, aspera arteria, and part of the chest, tartar emetic sufficient to keep up a continued nausea was administered, and now and then increased, so as to produce vomiting; calomel was given as an evacuant, and enemata to promote its operation. My first visit to this

child was about two o'clock in the afternoon ; in the evening the blister had made some progress, and the calomel had produced several evacuations *per anum* ; a constant vomiting and sickness had been kept up by the tartar emetic ; the boy now drew his breath with apparent freedom, the *hoarseness* was still considerable, though attended with but little *shrillness* : the next morning the child's appearances were very favourable, and, by a perseverance in the antiphlogistic plan, and keeping the blister *sore*, recovered.

The son of Mr. Moreland was attacked with the same disease a few days after ; this boy's make, constitution and health, previous to his indisposition, and the circumstances of the complaint and treatment, with his recovery, were in every circumstance similar, except with this difference, that the blister became *very sore*, and continued to discharge a *very offensive matter* more than ten days, which I attributed to a gross habit of body, and to too great a use of animal food, previous to his indisposition.

From the year 1774, until the succeeding autumn, I did not meet with a case of the angina trachealis ; at that period I determined once more to visit Dr. Hunter's theatre in London. My return to New-York was in 1776, when I was desirous of renewing my acquaintance with that disorder, but until August, 1779, no opportunity presented of treating it: in the mean time, however, I had profited in my observations by dissecting several who had died of the complaint, all of which confirmed the *inflammatory* nature of the disease and justified the mode of treatment I had adopted. Among others I examined a boy about fourteen years old ; the root of the tongue, the pendulous palate, and fauces, were covered with a much thicker and browner coat than usual ; the palate and fauces when disrobed appeared to have been highly inflamed, and their complexions were much darkened. The eustachian tubes had partaken of the inflammation, and at first view there was the appearance of an ulcer on each side of the fauces, but on a more minute examination their covering was merely mucus. On opening the wind-pipe, the new formed membrane was found, but of more than common consistence and tenacity ; at its entrance in the bronchia it was very thick, but gradually changed to a mere gelatinous mucus : before dissection, the boy was lifted up by his legs, and more than four ounces of mucus issued from his nostrils ; this had doubtless found its way from the bronchial pipes, and its being more

glary than what is commonly lodged in the fauces and nares, confirmed this opinion. The boy we have above mentioned had lived eight days in extreme misery, and if any case would have afforded a prospect of *ulcers*, it is probable they would have been found here. At this dissection several gentlemen of the faculty were present, and we were equally surprized when it was discovered that the parts beneath the new formed membrane, were entirely free from every appearance of disease.

In this month a child of Dr. Parker had passed a restless night, and for a few minutes was threatened with suffocation ; the next morning it was so much better as to run out into the street, though its voice was hoarse. About noon it was attacked with additional violence, and the symptoms of strangulation were such as induced the father to consult me. Not very apprehensive for the child, as the disease though permanent, did not appear to have made much progress, I ventured to flatter the parent that the child would be much relieved in a few hours, and perhaps quite recovered the next day. It was *bled ad deliquium* from the arm, tartar emetic was given to excite vomiting, and continued in small doses to keep up a nausea ; a blister was applied which covered the larynx, aspera arteria, and part of the chest ; calomel as an evacuant, with repeated glysters. The event was conformable to my expectations and wishes. The following more desperate case yielded to the same treatment.

In the latter part of September, I was sent for to the seat of Peter Stuyvesant, Esq. to visit a servant boy about two years old. In the spring it had been much afflicted with the hooping cough, a little fever pursued it for a month or six weeks, when it became very much reduced. An unexpected alteration however took place ; the child recovered fast during the two last summer months, and in the beginning of September was in perfect health. About the 20th it grew uneasy in the evenings, and its sleep was frequently interrupted ; this continued several evenings and nights successively ; a cough, accompanied with hoarseness, attended the feverish symptoms ; the cough intermitted, though the hoarseness was permanent from the beginning. When I first saw it, the difficulty of breathing was excessive, and the *hoarseness*, accompanied with a *shrill sound* very distressing to every ear ; its face was enlarged and apoplectic, and its eyes altered to a stare ; the jugulars

were very tense and swoln. In this deplorable situation, it would have been presumptuous not to have been apprehensive for its recovery. It was attempted to bleed the child in the arm, but four ounces of blood could only be obtained, which was judged to be a quantity by no means sufficient to answer any salutary purpose. It was then bled from the *jugular ad deliquium*, tartar emetic was given in doses to excite vomiting, a blister was advised to cover the larynx and aspera arteria, and directions left to continue the tartar emetic in small doses, so as to keep up a sickness at the stomach, and frequently to throw up a glyster.

Dr. Michaelis, physician general to the Hessian staff, did me the favour to accompany me in my second visit; we were pleased to find the child had passed a tolerable night, though the hoarseness was still considerable, and its respiration difficult. On examining the blister, it was found to have drawn well, though it had not been applied so high as to cover the larynx and fauces. The child was again bled *ad deliquium* from the jugular; a few grains of calomel was directed to be given with an infusion of senna and manna; this was to be continued until it procured several stools, recourse was then to be had to small doses of tartar emetic, until I repeated my visit. On the succeeding day the child puked twice a thin \* \* \* \* \*

\* \* \* \* \* (Chasm in the copy.) \* \* \* \* \*

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In the preceding sheets it has been my object solely to state matters of fact. Speculative reasoning serves as often to mislead, as to instruct. The situation of the patients I have visited, may be thought to be too particularly described, but as it is my desire to afford every practitioner an opportunity of making his own observations, and deducing his own inferences, I wished rather to appear tedious than to be wanting in any circumstances, which might be thought necessary to that end. A persuasion of the uniform success, which has attended the mode of treatment which I have pursued, and which has since been as happily adopted by others, was my inducement in thus (sir) publicly addressing myself to you.

However liable this letter may be to exceptions, in many instances, let others judge; my motive in writing it is the only reason which shall be offered, as an apology to the public, or yourself, by your most obedient humble servant,

RICHARD BAYLEY.

P. S. Since this letter was finished, I met with a late publication on the angina trachealis, in which we are desired to be cautious how we bleed in an advanced stage of the complaint, from an opinion of its putrid tendency.

With submission to the author, it may be observed, that except ulcers are found at the same time with the polypose membrane in the trachea, it will be difficult to prove its disposition to putridity. Every dissection which is recorded, evidences the inflammatory nature of the disease, and from the success which has attended copious bleedings, in the latter stages of the complaint, it may fairly be deduced that the angina trachealis, from its situation, and particularly from its affecting the bronchial pipes, has proved fatal, during the inflammatory stage.

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*The FATAL EFFECTS of a FOREIGN SUBSTANCE lodged in the ŒSOPHAGUS, and discovered by dissection after death. By THOMAS COCK, M. D. in a letter to Dr. MILLER, dated March 28, 1809.*

MRS. H. aged 73, enjoyed an usual share of good health, but from age had lost her teeth, and frequently complained of some difficulty in swallowing her food. While dining upon roast beef, being accustomed to swallow without much chewing, she complained that a piece had lodged in the passage to the stomach, producing considerable distress. Various attempts were made by domestic means to remove it, but without effect. She continued in this situation until the next morning, when a physician was sent for. An emetic was then administered, which had a free operation, but without effecting a removal of the obstruction. At this time she was still able to swallow liquids, but not without difficulty and pain, attended with a constant disposition to reject them. By advice of the physician, a surgeon was sent for the next day, with an expectation to remove the obstruction by means of a probang; this was introduced, and caused a considerable degree of pain. This operation was repeated several times, but without affording any relief. The surgeon afterwards introduced his fingers to their full extent, but was unable to dis-

cover any obstruction. Having by these examinations discovered nothing, and the instrument passing freely into the stomach, he left the patient to some general remedies, supposing her complaints to be merely spasmodic. In her present situation, she found it impossible to swallow even the smallest quantity of any fluid, although the desire was constant, and the attempt to gratify it often repeated.

She continued in this situation for thirteen days, without experiencing any abatement of the difficulty and distress which attended every attempt to swallow. These prevented her, during this period, from taking any nourishment; and she continued to endure the aggravated affliction of disease and starvation.

About eight hours before her death was the first time of my seeing her; she was then unable to give any account of her situation; but her friends supposed, that a portion of the beef she had been eating still remained in the œsophagus. They also said that while she could speak, she constantly insisted that something was still lodged in the throat, notwithstanding the operation of the emetic, and the free passage of the instrument. Upon examination of the fauces, there appeared considerable tumefaction about the pharynx, which it was thought advisable to open, and, if possible, give some relief to the unhappy sufferer. This examination was made in the morning, and the operation deferred until afternoon. In the interim, however, considerable alteration had taken place; the tumefaction had subsided by a discharge of extremely fœtid matter from the throat. The patient at this time was much exhausted, the extremities were cold, and every other appearance announced approaching dissolution. The discharge of fœtid matter continued at frequent intervals until evening, when she died.

From the anxious wishes of her affectionate friends to know the cause of so much distress, they were readily prevailed upon to admit an examination after death. An extensive opening was made upon the side of the trachea, and the sac of a large abscess at once presented itself, containing the same kind of fluid that had been discharged by the mouth before death. This abscess had a free communication with the œsophagus. Upon introducing the fingers into the sac, a fragment of bone was discovered an inch and a half in length, pointed at both extremities, and having attached to it a small portion of ligamentous fibre. This immedi-

ately explained every difficulty, and shewed the inefficacy of the instrument that had been used to remove obstructions in all cases from the œsophagus, or to determine their existence.

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ACCOUNT of the ERGOT or SPURRED RYE, as employed in certain cases of difficult PARTURITION: By Dr. SAMUEL AKERLY, Physician to the New-York City Dispensary, in a letter to W. P. DEWEES, M. D. of Philadelphia.

IN the present disposition of the medical world, we are apt to look upon quacks and empirical remedies with an eye of contempt. Many inert remedies are no doubt rendered efficient and powerful in the hands of these illegitimate sons of Esculapius, by the force of recommendation and the power they have over the minds of their patients. Medicines are frequently given by them with a bold temerity unknown to the modest practitioner. Hence perhaps their frequent cures, which from their blaze conceal their failures. Thus with them there is no such thing as an *opprobrium medicorum*. Their enticement is a safe and speedy cure.

From the general want of information among this class of practitioners, we are inclined to despise most of their remedies even when known, as they appear to be given without discretion or a proper discrimination, by their exhibition in the various stages of different and opposite diseases. This want of attention to quack remedies, has no doubt retarded the progress of medicine. Dr. Rush enumerates it as such in his lecture on this subject.\*

Though the doctrine of specifics is generally denied, yet we are forced to admit the particular operation of certain medicines on the kidneys, pulse, salivary glands, absorbent system, exhalant arteries, &c. and on this operation to establish the cure of a number of diseases. I would therefore invite your attention, and that of physicians in general, to the specific operation of a medicine which is confined to the uterus. It is known to but few regular practitioners, though it has long been used in Europe and this

\* Six introductory lectures. Philadelphia. 1807.

country by old women and others as a secret, which, when given in parturition, would expedite lingering labour. As backward as I am in admitting good from a bad source, I am inclined to believe the fact, and shall therefore give you the present extent of my information touching this point.\*

The medicine in question was made known to me by my friend Dr. John Stearns, of Saratoga county, by the name of *pulvis ad partum accelerandum*, which he had given it from its efficacy in this great process of nature. It is procured by pulverizing the seeds of rye which are affected by a particular disease, generally attacking that grain when growing in low and moist situations. When thus diseased it is known in medical authors by the name of *ergot*. When I first requested information on this subject, I received from Dr. Stearns the letter which is published in the Medical Repository, vol. 11. page 308. The small specimen of the ergot then received was insufficient for a trial, but a subsequent supply has since enabled me to give it with advantage, and my first experiment being successful, I hasten to lay it before you, with the result of its further exhibition.

The established reputation of Dr. Stearns would sanction the use of this diseased rye; but the otherwise ambiguous manner in which it has circulated would render caution necessary till further confirmation, but more particularly if we take into consideration the opinions of celebrated European physicians. You will be led to an apt conception of the ergot, by recollecting the four diseases which Linnæus attributes to plants, viz. erysyphe, rubigo, ustulago, and "clavus, when the seeds grow out into larger horns, black without as in rye,"† which the French call ergot. The clavus is found to affect the rye in this country in a similar manner as in Europe. It is attributed to insects, and has thence been compared to the nut-gall. Thus, at least, we have analogy to guide us in the use of the remedy in question. The word ergot is found in Motherby, and other works of that kind. The following is the definition in Quincy's Lexicon. "*Ergot*. So the French call the rye which is diseased in a particular manner, from its grains assuming somewhat the form of a cock's spur."

\* I do not mean by this to recommend empirical remedies, or methods of acquiring reputation; for no one deprecates them more than I do. I am much pleased with Dr. Mollefon's remarks on quackery, in the appendix of Sinclair's Code of Longevity, vol. 2. page 52 and seq.

† Note to Botanic Garden.

Neither Quincy nor Motherby mentions the use to which the ergot has been applied, but the latter notices the disease which arises from eating bad bread occasioned by the quantity of spurred rye among the flour. We find the ergot mentioned by Darwin as a disease to which grain is liable. Thus in his *Botanic Garden*:

“Shield the young harvest from devouring blight,  
The smut’s dark poison, and the mildew white;  
Deep-rooted mould, and *ergots* horn uncouth,  
And break the canker’s desolating tooth.”\*

But in a note, a “mortification of the extremities” is mentioned as the consequence of eating bread made of this bad grain. Dr. Beddoes, in some one of his works mentions, *en passant*, very cavalierly, the quackish use to which the ergot had been applied, and spurning the idea of its assisting in parturition, leaves it without further consideration.

In Duncan’s *Medical Commentaries*,† we have an account of the following memoir by Mr. Saillant. “*Recherches sur la maladie convulsive epidemique attribué par quelques observateurs à l’ergot, et confondue avec la gangrene seche de Solognots.*”

By referring to this paper, you will find that a disease called the dry gangrene has been attributed to the ergot, and a convulsive epidemic affection has been confounded with it. Mr. Saillant determines however from his researches, that these diseases are essentially different, the cause of the convulsive epidemic unknown, and of the dry gangrene undetermined. The latter several authors attribute to the ergot, while others point out different causes.

We may observe by this, that the ergot, if used in medicine, may not be an inert substance, although it is not indisputably determined what agency it has in producing the diseases above-mentioned.

From former speculations on this subject, I will now direct you to the late medical use of the substance in question, by reputable members of the profession. Besides the letter in the *Med. Repos.* before referred to, I have the following additional information in a letter from the same gentleman.

\* *Botanic Garden* Canto 4. line 541. † Vol. 5. p. 50. Philadelphia. 1795.

“ The prejudices which you observe exist in Europe against the use of the ERGOT, as being actively injurious or contemptible for its inactive qualities, I know to be totally unfounded. I have administered it to more than one hundred parturient patients, and I have never given it except in cases that threatened a difficult or lingering labour. I do not recollect a single instance in which it did not ultimately succeed, and I have generally been able to predict from the commencement of its operation, with tolerable accuracy, the period of delivery. This satisfactorily proves to me its active qualities. That it is not injurious you will have some reason to believe, when I assure you that I never lost a patient that I attended during her parturition, neither immediately, nor in consequence of sickness thereby induced; and that I have never had any case where the disorder could be traced to this source. I find it is more active when prepared by decoction than in powder; I therefore always prefer the former. It is much to be regretted that scientific physicians have generally held in contempt every medicine that quacks have been in the habit of administering. When we reflect that accident has given origin to the use of our most active medicines, and that we are indebted to empiricism for a knowledge of their most useful qualities, we certainly should neglect no opportunity of deriving aid to science from this source.”

“ I believe that the ergot, if properly used, will produce abortion in any stage of pregnancy. I have not, however, sufficient experience to be positive on this subject.”

Particular instances of the favourable operation of this medicine, have been shown to me, from different reputable sources, but not having them in my power, I cannot relate them. The following instance, however, occurred in my own practice, and is entered in my note book in the following words.

The first case in which I used this powder (*pulvis ad partum accelerandum*) was attended with very pleasing success both to myself and the patient. She had lingered one night and day with regular pains, but no ways forcing. Early on the second evening I found, upon examination, the os uteri perfectly dilated, and the head of the child far up in the pelvis, and not moved by the pain, during which the examination was made. The labia pudendi were swollen and dry, part of the waters having been discharged the evening before, and a considerable gush a few hours previous.

Having infused a scruple of this powder in about an ounce and a half of hot water, I directed a table spoonful every ten minutes, and retired. I was soon called back, and delivered the woman of a large living child, in less than an hour from her first dose of the infusion, of which she took but two table spoonfuls.

In less than ten minutes her pains began to increase, and with the second dose they became very forcing and almost incessant. The next operation was to produce nausea and sickness at the stomach, which in the course of half an hour induced an emetic effect, though but once. Labour being over thus in so short a time, the pains ceased, and there were none to expel the placenta, which however was gradually withdrawn. Few and inconsiderable after-pains followed.

The patient was a hearty strong woman, the wife of a mechanic, and aged about 40. In her two previous labours she had been very ill, and her delivery attended by fits, being long and tedious. In the course of the two months preceding her present labour, I had bled her twice. She was still, however, under apprehensions of her former difficulties. The infusion given had no operation on her imagination, as I only directed her to take it, and gave no information how it would affect her. The women present spoke with admiration of the tea I gave my patient, and the patient herself was delighted that her labour was over so expeditiously; though the pains were severe while they lasted.

Three other instances, in which I have employed an infusion of the powder of ergot, have been less successful, but at the same time demonstrated to me its active qualities. In one instance, an infusion of ten grains was given, when the uterus was dilated about the size of a cent, and turned back towards the sacrum, so that the force of the pains was not applied directly to the opening, but superiorly and anteriorly to its neck. The pains in this case became more regular and forcing, and continued for two hours, during most of which time, the os uteri was kept in the vagina by the finger, and found gradually to dilate by the pains operating upon it. Labour appearing from thence to abate, I bled the patient, standing, about six ounces. Shortly after she began to progress towards delivery, when I gave her two hours to end her labour; which was effected four minutes after the given time, by the striking of the town clock. I should have repeated the dose, but was not allowed to leave the patient to obtain it.

In another instance, it completely failed, but through the ignorance of a neighbour who was with my patient. She poured hot water on the powder, and allowing it no time to stand, urged it down almost scalding hot.

In the third case the pains were increased in frequency and force, but did not produce so speedy a delivery as was wished, as the smallness of the dose did not operate with sufficient force; and in this case also I was not allowed to leave my patient to procure a second. Four hours however was all the detention that I experienced after giving the medicine.

From the powerful operation that the ergot has upon the uterus, it may advantageously be used in other cases besides that of parturition. Dr. Stearns, who has long been in the habit of giving it in lingering labours, expresses his opinion that it will produce abortion. Indeed I have heard a case in which it has actually happened. I have also been informed that it has long been known in some parts of Connecticut and this State, and really been used by women themselves for this purpose.

It is a pity that a medicine possessing otherways such useful properties, should become so dangerous in the hands of the unprincipled, as there is no doubt it may, from its power over the uterus. But good and evil are so blended in this life and its possessions, that only the best of men can avoid the latter.

There is one other use to which, from analogy, we would be led to make of this medicine. It is in amenorrhœa. My colleague in the New-York Dispensary, Dr. Beekman, has happily succeeded in a case of this kind. He made use of a drachm in decoction. Its immediate effect was to produce violent bearing-down pains, which abated in the course of two hours. The pains also affected the back and thighs. The next day the menses returned, after a suppression of two weeks. Nothing was given with the ergot.

From these facts it will appear, that we have a powerful auxiliary in many cases of parturition. Since I attended your lectures in 1805, I have followed your plan of blood-letting previous to, and during parturition. Many females however are so timid as not to allow the employment of this means of assistance. Here we might very properly and with great advantage employ the ergot.

From your extensive practice, you will, no doubt, have frequent opportunities to admit its use, and if these few

facts, and the authorities quoted in its favour, are not sufficient to establish a precedent, I recommend to you a trial, and accordingly enclose a sample for your use.

Accept my acknowledgments for the benefit received from your valuable lectures while a student.

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*An ACCOUNT of the DISEASES prevalent in CLINTON COUNTY, New-York, during 1807. By Dr. HORATIO POWELL, of Chazy. Read before the State Medical Society, and communicated to the Editors by the President.*

**B**Y an article in the Bye-Laws of this Society, it is a duty incumbent on every member, at the annual meeting, to present a topographical description of the county in which he resides, together with a history of its diseases and their methods of cure.

My residence in the county of Clinton has been so short, and my appointment as Delegate to this Society is so recent, that at this time it is impossible for me to bring before you the required topographical description.

I am likewise sensible, that my account of the diseases which have prevailed during the late season, and the methods of treatment pursued, in the northern part of this State, will be very imperfect. However, in obedience to the rule, I cheerfully submit it to your inspection.

Diseases of the last season have partaken almost universally of a bilious nature. This bilious diathesis, if I may so use the term, has been, I think with much reason, ascribed to the formation and local situation of this county. Its evenness is such as to render it almost perfectly level. The scarcity of springs and running streams, as well as the dead creeks and extensive morasses which are scattered upon its eastern part near Lake Champlain, are, I imagine, but too productive of that never failing cause of bilious complaints, viz. marsh miasmata.

During the months of April, May, June, and the beginning of July, the weather was unusually cool: in the two former months much rain fell; and the season, to use the expression of the farmers, was very backward.

In April, many in this vicinity were affected with acute rheumatism, coughs, and other inflammatory disorders.

These patients, I observed, were principally amongst that class of people, who, for some time previous, had been several hours in each day immersed to their knees, and frequently to their waists, in the cold waters of the lake, for the purpose of making rafts of boards, and other lumber. Bloodletting, cooling cathartics, antimonials and sudorifics, were for the most part sufficient to work a cure.

In May and June the bilious remitting and intermitting fever prevailed very considerably; few cases, however, proved fatal. The remitting fever was treated most successfully, by exhibiting early in the disease, one or more cathartics of calomel. Frequently it was necessary to combine jalap with the calomel. An emetic of tartarized antimony, more or less powerful, as the symptoms seemed to indicate, and in some cases, emetics occasionally repeated during the course of the disease, were highly useful. In all, the *sp. mindeneri*, tartarized antimony, with laudanum, and the compound powder of ipecacuanha, after the first passages were sufficiently cleared, were serviceable.

In some cases, blisters and alterative doses of calomel were absolutely necessary; and where calomel was used to such an extent as to produce a genuine ptyalism, our patients were certain to recover. I have nothing to observe respecting the diseases of the month of July; for the inhabitants of this and the neighbouring towns were, during that time, almost universally healthy.

I now hasten to notice an epidemic, which, in the medical annals of this county, will be remembered for ages yet to come—the Influenza. Its first attacks in the vicinity of Chazy, were about the 10th of August. From whence this wide-spreading ailment originated; or by what laws of nature or of the animal economy it traversed with such uninterrupted regularity this and the neighbouring States uniformly from south to north, I am not able to determine. From its extensive prevalence, it did not appear to be merely *endemic*; neither was it contagious: but doubtless was owing to a peculiar state of the atmosphere, which peculiar state is best known by referring to meteorological tables kept during the continuance of this memorable *epidemic*. Its symptoms were somewhat various. I shall, however, describe them as I wrote them down at that time in my journal.

“Patients for the most part, on the first attack, complained of being unusually chilly; all the symptoms of a common

cold, or coryza, soon came on. Their nostrils were completely stopped; they had an incessant tickling cough, head-ache, and dull, and sometimes inflamed eyes. In some, the pulses were soft; in others, hard and frequent: they soon lost their strength. In general the appetite failed; some, however, continued to crave food as usual. Most commonly their bowels were in good order; urine high coloured. Some sweated easily upon exertion; others had their skin obstinately dry."

Our treatment has been to exhibit emetics, nauseating medicines, venesection when the pulses are hard; the feet to be kept warm and the head cool.

On the 20th of August I had noted, "the influenza is now very common. It is epidemic from New-York to Canada. Cathartics are in general useful; sweating is universally so."

On the 6th of September I noted, "This distemper still prevails: the coughing grows more obstinate, and of longer continuance." On the 11th of the same month I had observed: "The influenza still rages. Many are at this time first seized with pain in one or both ears; some with pain in one or more teeth, especially if any are carious; and some are first affected with severe pain in the small of their back; others in the back part of their head, complaining that the tendons of their neck are sore. All complain of a disagreeable bitter taste in their mouth, especially on first awaking in the morning; and many speak of troublesome soreness at the diaphragm and parts adjacent, from the almost constant coughing to which they are subject. Cold feet are not an unfrequent symptom, whilst the head at the same time in some is extremely warm. Some patients are affected with severe chillness constantly for twenty-four hours, previous to any preternatural heat or fever." About the middle of this month, this disease began to be less frequent; and by the first of October there was scarcely a case to be heard of. The prevailing diseases of the month of October were principally bilious, remitting, and intermitting fevers; not, however, very frequent nor alarming.

In November, a few, particularly of the younger class, and men in the prime of life, who were previously in perfect health, were invaded by inflammatory symptoms. Those who had made too free use of spirituous liquors, I believe, were most subject to those attacks. Bleeding,

cooling cathartics, and antimonials, were sufficient to stop the progress of this disorder. A few severe cases of bilious remitting fever likewise occurred during this month.

In December, the inhabitants of this part of the country were, for the most part, healthy: though several cases of croup occurred amongst children under three years of age; very few, however, proved fatal. Emetics of tartarized antimony, and cathartics of sub-muriate of mercury, followed by alterative doses of the same with tartarized antimony, when exhibited in season, effected a cure.

*Chazy, 25th January, 1808.*

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GEOLOGICAL, TOPOGRAPHICAL and MEDICAL *Information concerning the Eastern part of the State of OHIO; by Dr. GIDEON C. FORSYTH, of Wheeling; in two letters to Dr. A. C. Willey, of Block-Island; and by him communicated to the Editors.*

YOU must expect some inaccuracies in my style, but as far as my observations have led me, the account shall be correct. In giving this sketch, I may possibly afford some additional facts towards a theory of our earth.

From accurate observations, and according to the opinion of philosophers at the present day, it would seem as if the whole of our western continent had at some remote period of time been inundated; that by a gradual receding of the waters, the most prominent parts were first left; and that the washing of the waters against these, had formed what are here called *benches*. These benches extend all around the sides of most of our hills, in a horizontal direction. We frequently have several of these on the sides of our hills or mountains; and when wide they constitute what are called bottoms, as first, second and third bottom, counting from the river upwards. This opinion is farther confirmed from the following circumstance, viz. 1st. The richness of the soil even on the tops of our highest hills. 2d. Our having none of the primeval stones as granite and others of that kind. 3d. Our stones are either sand or that species called free-stone or marble; that is, the different kinds of lime-stone and slate. These constitute our ledges, together with the

fossil or stone coal. 4th. The vast quantities of petrified substances, many of which are found at great depths, as in digging wells and roads. 5th. The large quantities of fossil coal in almost all our hills. This you know is believed to be of animal and vegetable origin. It is remarkably pure and rich in bitumen. There are many springs called oil-springs, where the Petroleum or Seneka oil is gathered in abundance. Our coal burns with a fine lambent flame; gives out great heat, and leaves but few ashes. I need not tell you, that the sand, or free-stone, is thought to arise from large bodies of sand heaped together, and formed by nature into stone by a kind of cement; or that the limestones are composed of large quantities of shells, which time has converted into stone. 6th. The rolled pebbles on our highest hills as well as in vallies. These appear to have been worn smooth and round by the continual washing of the waters; they are sand stone. 7th. Vast quantities of shells sometimes at the height of 400 feet from the present bed of the river; these could not have been brought there, but, on the contrary, seem to have been once covered by waters which overflowed those places. 8th. The tops of our river hills are as high as those at the head waters of the streams which empty into the Ohio; say from 4 to 500 feet, (as I am informed by the commissioners appointed by Congress to lay out the road from the Potomac to this place.) This would argue that the streams had gradually worn them down to the present level. The sides of the hills are more bluff as you come nearer the river. 9th. The great changes in the bed of the large rivers. The town of Wheeling, where I now live, stands on a very high bank of what is called made ground, and was once, no doubt, the bed of the river; so that we are obliged to sink our wells as low as the river, in order to have permanent water. We find mud, logs, and petrified substances with the rolled pebbles, as far as the made ground extends downwards; say upwards of 40 feet. Our rivers run generally in a south western direction, as you will see by consulting the maps. Our mountains run sometimes in the directions of the rivers, and sometimes at right angles with them. The river-water is generally pure, as the bottom is sand and rolled pebbles, and seldom muddy. The earth is so light, that if the bank falls in by the undermining of the water, the light sand and earth are soon carried away, and nothing is left but pebbles and coarse sand. Iron ores are found in

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fossil or stone coal. 4th. The vast quantities of petrified substances, many of which are found at great depths, as in digging wells and roads. 5th. The large quantities of fossil coal in almost all our hills. This you know is believed to be of animal and vegetable origin. It is remarkably pure and rich in bitumen. There are many springs called oil-springs, where the Petroleum or Seneca oil is gathered in abundance. Our coal burns with a fine lambent flame; gives out great heat, and leaves but few ashes. I need not tell you, that the sand, or free-stone, is thought to arise from large bodies of sand heaped together, and formed by nature into stone by a kind of cement; or that the limestones are composed of large quantities of shells, which time has converted into stone. 6th. The rolled pebbles on our highest hills as well as in vallies. These appear to have been worn smooth and round by the continual washing of the waters; they are sand stone. 7th. Vast quantities of shells sometimes at the height of 400 feet from the present bed of the river; these could not have been brought there, but, on the contrary, seem to have been once covered by waters which overflowed those places. 8th. The tops of our river hills are as high as those at the head waters of the streams which empty into the Ohio; say from 4 to 500 feet, (as I am informed by the commissioners appointed by Congress to lay out the road from the Potomac to this place.) This would argue that the streams had gradually worn them down to the present level. The sides of the hills are more bluff as you come nearer the river. 9th. The great changes in the bed of the large rivers. The town of Wheeling, where I now live, stands on a very high bank of what is called made ground, and was once, no doubt, the bed of the river; so that we are obliged to sink our wells as low as the river, in order to have permanent water. We find mud, logs, and petrified substances with the rolled pebbles, as far as the made ground extends downwards; say upwards of 40 feet. Our rivers run generally in a south western direction, as you will see by consulting the maps. Our mountains run sometimes in the directions of the rivers, and sometimes at right angles with them. The river-water is generally pure, as the bottom is sand and rolled pebbles, and seldom muddy. The earth is so light, that if the bank falls in by the undermining of the water, the light sand and earth are soon carried away, and nothing is left but pebbles and coarse sand. Iron ores are found in

great abundance ; many of which are profitable to the worker. Pyrites is plenty ; some lead mines ; salt springs also ; many<sup>1</sup> are strongly impregnated with the muriate of soda. There is a large mine of the common Epsom salt of the shops, about 40 miles from this place, in the State of Ohio. It may be gathered in vast quantities, as it covers the whole face of the earth for some distance round a ledge, say six inches in depth. I have some of it by me, and think it a most excellent cathartic. A purer sulphate of magnesia is in the same place, in silver needle-like crystals ; it resembles sea-salt when exposed to the air for some days. Copperas, alum, and saltpetre, are also found in some parts. The latter is gathered and purified, and manufactured into gunpowder in some places. In the bed of a creek not far from Wheeling, there is a stream of sulphurated hydrogenous gas, discharged constantly in warm weather from a hole in a rock, which causes a noise like the boiling of a pot ; is very offensive, and impregnates the water with its own disagreeable taste and odour.

There is, perhaps, no country more abundantly furnished with medicinal plants, by nature, than this. The great variety of soil seems wonderfully calculated for this purpose. Among our medicinal plants are the \*seneka, serpentaria virginiana, tormentilla, \*stellac, \*valeriana, \*may-apple (podophillum peltatum,) puccoon, sarsaparilla, \*yellow-root, \*rattle-weed, wood-dittany, gentian, ginseng, \*wild cucumber (magnolia,) prickly-ash, spikenard, hoarhound, calamint, spear-mint, penny-royal, \*buck-eye (horse-chesnut) dog-wood, wild-ginger (colts-foot,) tooth-ache-weed, sumach, and \*beach-drop. All these, and many more, are spontaneously furnished us in great abundance ; so that you see we can supply ourselves with the vegetable astringents, stimulants, tonics, aromatics, sialagogues, and alterative medicines, without being indebted to the shops of Europe. I get my radix senekæ for 50 cents per pound ; my Virginia snakeroot for 25 cents ; wild cucumber fruit for 50 cents per bushel, and other articles at similar prices. At some future period, I may give you a more minute description of our vegetables and their uses in medicine, not having leisure, nor made experiments sufficient to justify me at present ; but this much I know, that we have a most

\* These are not to be found in the Eastern States. I believe they are valuable medicines.

valuable growth of medicinal plants, and I have almost ceased to supply myself with officinal vegetables from Philadelphia.

This shows a wonderful display of the goodness of Providence, in being so liberal to a country so far removed from commerce. Our *acer saccharinum*, or sugar maple, is so plentiful here, that we hardly see imported sugar, except loaf and lump; we can get any quantity for 10 and 12½ cents per pound. By clearing it with animal jelly while boiling it down, such as eggs, milk, or glue, and adding a little unslaked lime to take up the superabundant acid, we have a most beautiful, lively, white, and clean sugar.

Our climate is much more mild in the same degrees of latitude, than eastward of the Alleghany Mountains. This is caused by the winds which are mostly up the river, or from the southward and westward. (See Volney's account of this country.) I have rarely known a north-east storm here; that unfriendly wind seems to know that its bounds are the Alleghany Mountains.

The soil on the north side of our hills is by far the richest. This no doubt is owing to the winds blowing so constantly from the southward, carrying the leaves and lodging them on the north side, which, by rotting, have at length made the soil rich. This you know is quite the reverse of what is the case in New-England, where the north side of the hills is cold, and frequently unproductive. Although the climate is more mild, yet it is much more unsteady, and I can never prognosticate of the weather twelve hours beforehand. In August the nights are very cool, and generally foggy, especially on the river.

From these circumstances you may judge, that there is a difference in the diseases here and in New-England, where the weather is more steady and the atmosphere dry; and also look for rheumatisms, pleurisies and consumptions. This is the case; but our pleurisies are, in almost every instance, attended with bilious symptoms (bilious pleurisies.) A person will be seized with all the symptoms of a genuine pleurisy; we deplete, and about the 5th or 7th day his skin and urine will turn yellow; a slow bilious remittent follows him perhaps for some weeks. The phthisis pulmonalis is if possible more common than on the sea coast.

Our atmosphere is very moist; our cellars are so likewise. It is difficult to keep milk twelve hours without souring; or things even in the upper rooms from moulding.

My books were moved two or three times this summer past, in consequence of being mouldy. We are also more subject to bilious complaints than in New-England. In my next I shall probably enlarge upon the diseases of this country; and give account of the artificial and natural curiosities, and of some of the animals peculiar to this country.

*Wheeling, August 1808.*

*Wheeling, November 24, 1808.*

In the first settlement of this country, the inhabitants were under the necessity of living in small log cabins, say 12 or 15 feet wide, and perhaps 16 feet long, with a small hole which served for a window, and one door; the floor of split logs or punchins, and the side walls filled in with mud. In these, large families were crowded together like so many sheep in a pen. Their living was principally fresh meat and vegetables. Several years would pass before a sufficient improvement could be made to let the sun have its necessary influence, and winds to pass off freely. Under such circumstances, where vegetables grow so luxuriantly, their sudden decomposition must afford much miasma, which could not be carried off by the winds sufficiently to keep the air pure; so that by day they were exposed to this unfriendly air, and at night confined to their own effluvia in those unventilated cabins. Add to this that the unreconciled state of their minds, by coming so far from their native homes and settling among strangers, creating a degree of home-sickness, as it is called, could not otherwise than have a sensible effect on their diseases. All these causes had a tendency to give a typhous state to them.

For the four first years after I came here, I found fevers of the nervous type, and very obstinate. Whole families would be laid up frequently from four to eight weeks, before any symptoms of convalescence appeared, except those who called for medical aid in the forming state of their fever. The difficulty of procuring comfortable clothing, food, necessary wine, and almost every comfort, combined to render the efforts of the physician unsuccessful: and it was only by changing the action by powerful stimulants that success could ensue. Calomel, opium, camphor, bark, valerian, epispastics and sinapisms, often venesection, emetics or cathartics, and changing the linen frequently, were the principal and almost only remedies. In several instances I gave calomel 10 grains, with opium half a grain, every two

hours; epispastics to wrists, sinapisms to feet, with the happiest effects. Much benefit likewise arose, in many instances, by diverting their attention from their present situations to the anticipation of their future ease and prosperity; contrasting these prospects with those they had left; telling them how much easier they would live in a few years, than on the other side the mountains. Here they could raise 40 or 50 bushels of corn, and 25 or 30 of wheat, per acre, and where they formerly lived, one half that quantity would have been considered good crops, and require double the labour; that this was only a seasoning to the country, &c. These, and other similar ideas suggested to them, would seem to cheer their desponding spirits, and almost drive away their pains.

I am fully persuaded of the necessity of metaphysics going hand in hand with medicine. The worthy professor Rush used to say to his class, "Let no man enter these doors (the university) without a knowledge of metaphysics."

But in proportion as the country has become cultivated; the inhabitants better clothed and fed; their houses enlarged, and a more free circulation of air; the diseases are less frequent, and their type materially changed.

In all newly settled countries, I believe the practice of drinking ardent spirits to excess is very common; at any rate it has been, and is the case here. The low price of whiskey and peach-brandy, favours it very much: so that while we are getting, in some measure, rid of the diseases consequent to a new settlement, another more formidable evil is generating. So common is this practice, that many heads of families will rise in the morning, bring out their bottle, and call all their families around them to taste the potent liquor, as regularly as the good man does his family to join in their morning devotions.

We have no wells; so that the people use spring and river water: the former is called hard, as it does not wash well. The lower class of women wear no shoes for a considerable part of the year; of course are liable to frequent obstructions of the catamenia, and perhaps from the same cause to hysteria. Smoking tobacco is a common habit among the country women; their reasons for it are various, but the most common is "to drive away sorrow."

On account of the very damp and changeable atmosphere, cynanche trachealis, cholera infantum, and hydrocephalus internus, are very common complaints among the children;

and I have frequently seen each of these diseases alternate with each other in the same patient, which has induced a belief that there is a great affinity between them. In the neighbourhood of the river we are peculiarly liable to catarrhs and colds. There is, perhaps, no river in the United States so subject to sudden rising and falling of its waters, as the Ohio and the rivers which form it; sometimes it can be forded with ease, and again will admit of large vessels to pass with safety. I have observed that its sudden rise is generally attended with affections of the lungs. The influenza appeared general in this country twice last year, viz. May and October. In my note book for May 20th, 1807, I find the following remark: "For several weeks past, the influenza has prevailed in this and the adjacent counties, supposed to be caused by the sudden melting of the snows in the mountains, which produced a very great rise of water in the Ohio; the air very damp and cold, wind north and north-west. Its symptoms were cold shiverings, pain in the head, generally across the eyes, full pulse, sore throat, an ichorous discharge from the nose and eyes, cough, and pain in the limbs. The chronic diseases which followed, were phthisis pulmonalis and swellings of the tonsils."

*Goitre* is likewise a very common and endemic complaint here, but more especially at the confluence of the Alleghany and Monongahela rivers. Its cause appears to be a particular state of the atmosphere in this district of country.

May not those causes which so frequently produce affections of the tonsils, trachea, and throat, likewise produce, by long application, an enlargement of the thyroid gland? I am induced to believe, that all those causes which have a tendency to bring on obstructions in other parts, have also a tendency to cause the disease of *goitre*; for I have noticed a very sensible enlargement of the thyroid gland, upon a sudden suppression of the catamenia; and on the contrary, found it lessen when the patient was regular in that periodical evacuation. It may be as a late writer observes (see Dr. Wishart's Thesis on Thyroicele) "that there must be a predisposition in the system;" yet the same causes which induce a predisposition, likewise produce the disease; for a certain cure is to remove the patient to a part of the country where this disease does not exist. Where this is not convenient, I have sometimes relieved it by applying a blister to the part, and then dressing it with strong mercurial ointment, or a long continued and constant application

of the juice of the *datura stramonium*, either in form of an ointment or separate, and alternated with a strong solution of *sal. ammoniac*, in rose or common water ; at the same time internally giving mercury so as to slightly touch the mouth ; and externally, flannels, and particularly to keep the feet and neck warm.

A swelling of the sublingual and submaxillary glands, is very common and troublesome in these parts. There is also a peculiar species of itching which attends new-comers for some months, and is generally attributed to the water.

I must now close my remarks on the diseases of this country. They have necessarily been short, but still I hope you will find some of them interesting ; and if ever you should be induced to remove to a new settlement, they may be of service in directing your practice.

In my last letter I mentioned the valerian plant as growing here. Last year I procured several pounds of it ; and although it was not quite so strong as the imported, on account of its being gathered in the low grounds, yet it answered equally well by giving it in larger quantities.

The *hydrastis canadensis*, or yellow root, grows in great abundance here, and I have found a cold infusion of it an excellent remedy for the chronic stage of sore eyes, which is very troublesome in these parts. This root will undoubtedly prove of importance in the art of dyeing, as it can be afforded at a low price, and furnishes a most beautiful yellow colour. I have obtained of the Indians the process of colouring with this, and a root which colours red. It is well known that they possess the art of colouring feathers, beads, and yarn for their belts and mokissons, of a most brilliant yellow and red colour. Their process is as follows, viz.—They boil the powdered root in the juice of the crab-apple, (the quantity of each is proportioned to the quantity of the article to be coloured) until it has extracted all the colouring principle ; then strain it, and while it is warm, keep dipping the material to be coloured into it constantly, until it receives a uniform colour ; then wring it out, and dry it under cover if possible : after it is well dried, they wash it clean in a pretty strong lye made of common ashes ; then wring it out, and when it is dry it will be fit for use. Whether this would answer for cotton or linen without first animalizing it, I am not able to say. The same process is followed to colour with the red root. No doubt some other

mordant would answer equally well as the juice of the crab-apple.

In my last I mentioned, that our hills run sometimes in the direction, and sometimes at right-angles with the rivers; but neglected to observe, that the dividing ridges always run parallel to the Alleghany mountains. I would further observe, that the bark of the common maple was found at the depth of 57 feet below the surface, in digging a well in this town. I have also been informed, that there is in one spot in the State of Ohio, a large body of flint stone. The river bank and hills on each side uniformly correspond to each other, and if we have a large bottom on one side, on the other the hill comes near the river.

When these letters were written, I did not expect them to appear in public: but should any part of them be thought worthy of a place in the Medical Repository, you have my liberty to offer them. I could wish a few corrections to be made; however, as neither censure nor applause is the primary object, I am willing to submit them as they are.

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*A concise description of MARIETTA, in the State of Ohio; with an enumeration of some VEGETABLE and MINERAL productions in its neighbourhood. Communicated by Dr. S. P. HILDRETH to Dr. MITCHILL, from Marietta, January 17, 1809.*

THE favourable manner in which my production of last year was received, has induced me to communicate to you a description of Marietta, and some of the mineral and vegetable productions in its neighbourhood; the present situation of our country making every addition to our materia medica doubly valuable.

The town of Marietta is situated at the confluence of the Muskingum and Ohio rivers. The Muskingum, which is about 200 yards wide at its mouth, divides the town in two unequal parts, that on the east side being much the largest. The eastern part is again divided by a creek, which rises in the adjacent hills, and falls into the Muskingum, 100 rods from its mouth. The land on the eastern side is several feet lower than the western: it is composed of clay and loam

on a bed of gravel, which appears to have once been the bed of the river, by the logs and trees that are found in digging wells, at the depth of 35 feet, which is the present height of the banks of the Muskingum. Immediately back of this clayey land, on the eastern side, is a gravelly plain; this plain is 30 feet higher than the bottom lands; the gravel of which it is composed, resembles that which now makes the bed of the river; and from many circumstances we are led to believe that this plain, which is now more than 60 feet above the level of the river, was once its bed. On this plain, are situated the ancient mounds and fortifications which have already been often described. The town is laid out in regular squares, and contains about 1000 house lots, of one third of an acre each; the streets are 90 feet wide, and cross each other at right angles. Marietta, at present, contains about 180 dwelling houses, and nearly 1500 inhabitants. Many of the houses are large and elegant, and nearly half of them are brick. About 20 houses have been built within a year. The public buildings are a court house, jail, academy and two meeting houses; one of wood, large and very elegant; the other of brick, not finished—both begun since 1807. The public offices are, a post office, receiver's office, and recorder's office. A bank, the capital of which is \$100,000 was established in 1807. Ship building has been carried on here for several years: the summer of 1807 saw two ships, three brigs, and two schooners building at one time; and in May last they passed the falls of the Ohio in safety. There are three large *rope-walks* in the place, two only of which are at present used. The soil of this country is well adapted to the growth of hemp; the crops are large and of an excellent quality, and at some future day it will be the staple of the country.

The diseases of this climate are generally of the bilious class; there are some of the pneumonic kind, but very few cases of phthisis pulmonalis: asthmatic cases are very rare, and those of the spasmodic or nervous kind, find a quick relief in this country: rheumatism is more common. The only endemic I am acquainted with, is ophthalmia membr. The attack is sudden, very violent, and often terminates in a loss of sight. Complaints of the bowels are common, particularly to strangers: of this class of diseases, cholera infantum is the most common and destructive.

The past season has been very favourable both to the vegetable and animal kingdom. The crops of grain, fruits,

and grass have been unusually large and good. Many of the sheep, large flocks of which run on the commons, have brought forth twice in the course of the season; a thing unusual in our country. Last year the crops of corn were very much injured, and in some places destroyed, by myriads of grey squirrels. They seemed migrating from the north to the south—hundreds could be seen crossing the Ohio, where it was nearly a mile wide; in this attempt thousands were drowned: they were much emaciated, and most of them covered with running ulcers, made by worms of the *grub* kind. By the first of January they mostly disappeared; after that, and to this time, it was observed that on cutting hollow trees, their usual habitations, they were found in a manner filled with the bones and hair of squirrels; some trees containing as many as 40 or 50. By this it would seem they had died of some disease; for had they died of famine, they would have been found in the fields instead of hollow trees. It will be recollected, that this was the season in which bilious fever and influenza ravaged the country. In short, such were their numbers, that the Legislature of this State passed a law, requiring each free male inhabitant to furnish one hundred squirrel scalps to the clerk of the county, or three dollars in cash. At this time there is scarcely one hundred in this county, and the law is repealed.

The weather through the last season, or 1808, has not been marked by any peculiar changes. In June it was rather warmer than usual; on the 30th, the thermometer stood at  $98\frac{1}{2}$  in the shade, and for several preceding days at 97. On the 24th of December, 1808, after very violent rains, the ground having been covered previously with about four inches of snow, the Ohio and Muskingum began to rise; and by the 27th, some parts of the town were twelve feet under water. The Muskingum was two feet higher than has been known before, since the settlement of the country, which is twenty years. The bottom lands were swept of all their fences, stacks of grain and hay, and even some buildings; numbers of which were seen floating down the Muskingum. The people fled, with their flocks and herds, to the hills for safety. Most of the bridges were destroyed, particularly one across the mouth of the Little Muskingum; it was thrown across with one arch of 120 feet, supported by abutments of stone.

*Bill of Mortality for Marietta, Ohio, for 1808.*

Complaints.	Ages.	No.
Apoplexy,	42 years.	1
Atrophy,	60 y.	1
Abscess in the head,	18 months.	1
Consumption,	36 y.	1
Cholera Infantum,	2 m. 8. 3. 4. 6. 1 y. 5 m. 3. 6.	9
Convulsions,	1 m. 2 w.	2
Drunkenness,	35 y.	1
Drowned,	20 y.	1
Fever Puerperal,	17 y.	1
Iliac Passion,	19 y.	1
Typhus Gravior,	36. 30. 60. 50.	4
Pertussis,	7 m.	1
Premature Birth,		3
Worms.	11 m.	1
		28

The births for 1808, are 140.

The deaths in 1807, were 51, principally of bilious fever.

Among the medicinal plants of this neighbourhood, which the present state of our national affairs renders particularly valuable, is columbo, equal, if not superior to any imported. It has received the approbation of every one in any manner acquainted with its virtues. It is found in the greatest plenty; sufficient for the consumption of the United States. Turmeric, or curcuma, is also found in plenty, and of a good quality. Seneka snakeroot (*polygala senega*) is found in great abundance and of an excellent quality. *Serp. virgin.* and *serp. canadens.* or what is vulgarly called black snakeroot, are very common. There is another root resembling the *rad. serp. virg.* growing in clusters, that dyes a very beautiful and permanent yellow; it is powerfully antiseptic, and in great esteem for the cure of aphthæ and putrid sore throat. *Spigelia* is common in the woods; and some very good specimens of *valerian* have been shown. We have a species of *ipécacuanha*; the hills are covered with it in many places. It has the appearance, when pulverised, of the *ipécac.* of the shops. The roots are tortuous and of a light brown. It is generally used in decoction; two ounces of which are a powerful dose for an adult. *Ginseng* is very common, as is *mezereon*, and two kinds of *sarsaparilla*. There are several roots used for the bite of

snakes, of which I know not the names. They are very acrid, and when pounded and applied to the skin, produce a blister in a few minutes. Dog-wood and yellow poplar answer in decoction nearly as well as peruvian bark.

This climate seems well adapted to the growth of the poppy. Some experiments were made with the *papav. alb.* in my garden, the last summer. The succus was collected from incisions in the head, after the fall of the flowering leaves, and inspissated in the sun. The opium was very pure, and much stronger than any I ever obtained from the shops. The next season I intend cultivating the poppy on a larger scale. The ensuing spring I propose forwarding to you some specimens of the *rad. columbo*, turmeric, and *ipecac.* with drawings of the plants; when you will be better able to judge of their identity and value.

Amongst the mineral productions of this country, which are and will be worthy of the highest consideration, are—

1st. Aluminous earth, from which alum could be made in large quantities. Some very pure alum (sulph. of alumine) has been found.

2d. Large beds of pyrites are found in many parts of the country; and in some places native copperas (sulph. of iron) has been found. The pyrites are in sufficient abundance to make the manufacture of *sal. mart.* an object worthy attention. The waters in many parts of the country are impregnated with marine salt, and it is made in large quantities in several places in the state.

3d. Coal. This appears to be contained in large beds through all the hilly part of the state.

4th. Iron ore. This is very abundant; and large works are establishing about 70 miles above here, on the Muskingum, for its various manufacture.

5th. Clays. Of these, red, brown, blue, and white are found. Of the latter, some of a superior quality is found in this neighbourhood; when dried and mixed with oil, it makes very strong putty. Different kinds of ochre are found in the beds of almost every creek, particularly red; which, when burnt, is equal to Spanish brown.

6th. Free stone, nearly as handsome as marble, is found in inexhaustible quarries; elegant specimens of which are common in mantel pieces, and monuments of the church yard. Grit stone, from the coarsest drip stone to the finest grind stone, is very common.

7th. Lime-stone is plenty, as is gypsum: some elegant crystals of which have been found (sulph. of lime.)

8th. Nitre (sept. of potash) is found in elegant crystals in the clefts of rocks and caves, in a number of places, and in considerable quantities.

9th. Slate (schistus) is found, both of the primary and secondary kind.

10th. Seneca oil, a kind of petroleum, is found up the Muskingum. It is obtained when the water is low, in the bed of creeks and the river. It commonly rises in bubbles, which burst and float on the water. Where these are seen to rise, they enclose the place with stones, to prevent the current from carrying it away, and sometimes gather a barrel in a few days.

Besides the medicinal plants I have mentioned, we have a large number of beautiful flowering shrubs, which I have not seen described by any writer; but as I have drawn this communication to a length which I fear is tiresome, I will defer their description at present.

A CASE of DYSPEPSIA, from a scirrhus Stomach, ascertained by Dissection. By DR. RICKETSON, of New-York.

**D**YSPEPSIA, like many other diseases, may be occasioned by various causes, some of which can only be ascertained by dissection after death.

This mode of improving Pathology cannot be too much cultivated and recommended; a useful and lasting monument of which may be seen in the elaborate and valuable work of Morgagni, "*De causis et sedibus morborum*."

John Griffin, aged near 60, of this city, the subject of the present investigation, had laboured several months under most of the symptoms of Dyspepsia, such as eructations, heart-burn, sour stomach, anorexy, nausea, and vomiting, with flatulence, costiveness, and distention of his bowels.

I did not see him until about 10 days before his death, when his symptoms had increased to an alarming degree, particularly his vomiting, so that he could retain neither drink, food, nor medicines on his stomach.

From his situation, little advantage was contemplated by

medicines given by the mouth. I therefore prescribed an assiduous course of injections of two kinds: one with a view to evacuate his intestines, which were much distended with wind and indurated fæces; the other of nutritious soup, to supply the want of nourishment, which his stomach could not retain.

On my first visiting him, I suspected a scirrhus affection of the stomach, in which I was confirmed at every succeeding visit. He continued to languish gradually till his death, which took place on the 28th ult. After which, I proceeded to examine the state of his stomach, the small or lower extremity of which I found in a thickened and indurated or scirrhus state, extending about two inches above the pylorus, which was nearly closed, and which therefore could not permit nourishment to pass into the duodenum.

The internal coat of the stomach appeared in a slightly inflamed state.

No particular disease or derangement appeared either in the liver, spleen, pancreas, or other viscera, except that the omentum, mesentery, and mesocolon were in an indurated and nodous state.

The cavity of the abdomen was filled with a thick yellow serum.

This state of the stomach, or cause of dyspepsia, is more particularly to be suspected in aged people, who have been long addicted to the free use of spirituous liquors, which, among other injurious effects, have been often observed to contract the stomach and intestines, and to render them coriaceous or callous.

In confirmation of which, I found, on minute inquiry, after the death of the above person, that he had several years been in the practice (when working at his trade, which was that of a blacksmith) of drinking ardent spirits freely or frequently, though rarely to the degree of intoxication.

The preceding case furnishes us with this useful practical observation, that in obstinate and long protracted dyspeptic cases, which do not yield to the usual remedies, there may be reason to suspect a scirrhus state, or some other organic affection of the stomach; which, however, it is to be lamented and acknowledged, will probably prove fatal, in spite of medicine. I know of no remedy more likely to effect a cure in such instances, than an early introduction of mercury into the system, which was attempted in the above case, but not until an advanced stage of it.

*New-York, 2d Mo. 6th, 1809.*

*An INFLAMMATION, apparently of the OVARIUM, ending in SUPPURATION, and discharging a living worm and a well-shaped tooth. (With the tooth.) In a communication to Dr. MITCHILL, by JOHN ARCHER, M. D. of Hartford county, Maryland, dated 14th Nov. 1808.*

**Y**OUR Medical Repository is a very useful periodical publication, in which many occurrences in medicine and surgery are preserved from oblivion, that may be useful and satisfactory to future practitioners. I read it with pleasure. Medical and chirurgical practitioners ought to consider themselves bound to communicate such occurrences as may happen in the course of their practice, especially such as rarely happen. The present communication arises from sundry uncommon and extraordinary events that occurred from the commencement to the termination of the disease.

Mrs. A. B. about five years ago, was taken in labour, and delivered of a son. Nothing happened during the labour more than common in such cases, and for a few days after continued as well as usual, when she complained of pain and soreness in the region of the pubes, especially between the pubes and right ilium. The complaint increasing, she sent for me, and on examination I felt a deep seated induration, that I conceived to be an enlargement of the right ovary. I ordered emollient baths and poultices, with weak solution of saccharum saturni mixed in the poultices, and an alterative use of mercury. This was continued for some time, without any abatement of the complaint; the tumour gradually increased in size, extending from the pubes to the ilium and upward into the umbilical region. In about three weeks, there was evidently (in my opinion) a fluctuation of matter; I therefore advised that the tumour should be opened. This advice was at first opposed by Mrs. A. B. conceiving it to be dangerous; but when informed that it would be more dangerous to delay the operation, she in two or three days consented that the operation should be performed, and I opened the tumour with an abscess lancet; but not until I had introduced the lancet near two inches, before it entered into the cavity of the tumour. It then discharged freely, a large quantity of good conditioned matter. For several weeks it was dressed daily, and lint introduced to keep the incision open. After some time the discharge gradually lessened, but the ulcer did not heal up entirely, frequently discharging small quantities. At length in about a year after

the commencement of the tumour, the end of a worm protruded at the orifice and was extracted. It was about eight or nine inches long, and appeared to be like to a lumbricus, and alive. From this time the discharge abated, and at times stopped for three or four days, sometimes for a week, and then discharged small quantities; and when evacuated the orifice closed as before, for about a week or ten days, and discharged again. In this manner it continued for a year, when on examination there was perceptibly to be felt, with a probe, a hard substance just within the orifice, which I supposed to be an exfoliated part of some one of the adjacent bones. This substance was immediately extracted, and when washed, to my great surprise, it appeared to be like a tooth, resembling a dens sapientiæ: the upper part is enamelled and the upper end or crown is indented, similar to indentations of a tooth that has no opposite tooth; the lower part or root does not appear as if it was inserted into a bony alveolus, but had a fleshy attachment; the lowest end has an aperture that enters into the cavity of the tooth, for the passage of an artery, &c. similar to apertures in other teeth, but larger. After this hard bony substance was extracted, the orifice healed, and has remained in a sound state for the last three years. Within the last two months, she complains of a little soreness in the same place, and on examination there is to be felt a hardness about the size of a nutmeg, deep seated, and when pressed it is sore. I have ordered the part to be daily rubbed with an ointment made of stramonium, and weekly to take mercury and a purge. I hope there are no more worms and teeth to make their appearance. I would further observe, that Mrs. A. B. has had no more children, and probably will not, as I suppose the remaining ova were destroyed by the inflammation.

I have enclosed to you what I have called a tooth, that you may have ocular demonstration, and be enabled to form your own opinion. I must confess I cannot rationally account for the generation of a worm, one of the species of lumbricus, in an imposthume of the ovary, and living therein until it had grown to the usual size; nor for the formation of a tooth therein, of such firmness and solidity. If there had been an extra-uterine fœtus, why but one tooth, and why a dens sapientiæ? Why were no other parts of the fœtus to be found and extracted? Must we call these the aberrations of nature? We know there are ossifications of various parts of the human body, but the ossified part retains its former shape, only the part is changed as to substance, i. e. into bone,

**SUDDEN DEATH, during a SURGICAL OPERATION; described in an extract of a letter from MR. JAMES VOSE, dated London, October 9th, 1808.**

**I** ASSISTED Mr. Cooper at an operation for popliteal aneurism on Friday the 7th instant, which was attended by a most extraordinary event. I led the patient from his ward into the theatre, and did not observe that he betrayed the slightest agitation: he got upon the operation-table without assistance, and composedly placed himself in the posture required. Mr. Cooper proceeding to the operation, laid bare the sartorius muscle, and by his incision exposed the saphena vein, at the same time wounding a small branch of it, which I compressed with my finger, before it had discharged two drachms of blood. He was employed in dividing the strong fascia, which covers the femoral artery, &c. while I held aside the sartorius; when a hollow groan from the patient, and a sudden convulsive extension of his limbs, induced me to turn from the operation, and examine his countenance. His face had become of a cadaverous leaden colour, his respiration had ceased, and his pulse could not be distinguished. Mr. Cooper, and I believe most present, at first, thought he had fainted from excessive fear. A few deep and struggling inspirations, which the patient fetched after the lapse of some minutes, were considered as signs of returning life, and every means employed to second them; his lungs were inflated, and his jugular vein appearing turgid, was opened; but every effort to restore him proved ineffectual: the intervals between his laboured inspirations became longer, and he expired in less than ten minutes from the commencement of the operation.

I might now amuse you by the variety of conjectures which were hazarded on the immediate cause of this poor man's death, but perhaps you are fortunate that my paper will not admit it. The prevailing and most reasonable opinions were, that he had fallen a victim to fear, or an epileptic fit, his first struggles being supposed by some to resemble a violent paroxysm of the latter. *Mr. Cooper espoused the side of fear.* But the Doctors were all struck dumb, when we next day, on examining the body in their presence, found the pericardium containing a great coagulum of dark-coloured blood, which was moulded to the exact shape of the heart, and surrounded it to the thickness of an inch and a half. An aneurism of the aorta was found within the pe-

ricardium, and just above the semilunar valves : it was about the size of a black walnut, and communicated with the channel of the artery by a much larger circle than usually exists in aneurisms of similar dimensions. The sac adhered to the superior cava at one point, and had given way at its posterior part. The whole aorta was diseased, and a small aneurism formed in the abdomen ; the preparation of which Mr. Cooper presented to my friend Mr. Charles Bell. The brain and abdominal viscera were natural and healthy, and the lacteals and thoracic duct (which I have preserved) were filled with chyle. The aneurism in the ham had existed but a few months : when Mr. Cooper took it out, the blood was fluid, and the surrounding parts uninjured. The patient was operated on the morning he came into the hospital.

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 REVIEW.
 

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*Sketch of a plan and method of education, founded on an analysis of the human faculties and natural reason, suitable for the offspring of a free people and for all rational beings. By Joseph Neef, formerly a coadjutor of Pestalozzi, at his school near Berne, in Swisserland. Philadelphia. 1808. 8vo. pp. 168.*

ON a former occasion, we laid before our readers a brief account of the plan of education proposed by the Helvetian teacher, Pestalozzi, (M. R. Hex. II. vol. 4. p. 411) and a sketch of his pupil Chavannes's book in explanation thereof. Our friend Murray's labours to facilitate instruction, are mentioned in Hex. I. vol. 4. p. 307. and in Hex. II. vol. 2. p. 83; and Mr. Webster's efforts to facilitate knowledge, are noticed in the 5th volume of the same Hexade, p. 72. Nor have we omitted to make what are considered suitable remarks, in displaying the natural method of Mr. Dufief, Hex. II. vol. 2. p. 422.

Having heretofore given the origin of Pestalozzi's institution, and a sketch of his system, we have now an opportunity of announcing the arrival of one of his disciples and fellow-labourers, in this country. This person is Joseph Neef, who came to Pennsylvania on the invitation, and under the protection of William Maclure, Esq. This gentleman had visited the original seminary at Yverdun, and beheld the scholars of Pestalozzi pursuing their course of tuition under their master's eye. He was so fully convinced of its superior ease and excellence, that he determined if possible to found a school upon the Pestalozzian principles, in his own country: and he accordingly engaged the writer of the present book to migrate to Philadelphia, and to prepare himself for a practical display of his skill in or near that city. Mr. N. has employed himself, since his arrival, in learning our language, in composing the present work, and in making arrangements for receiving the requisite number of boys for instruction. The number of these, he says, shall by no means exceed forty; and as soon as he procures them, he will enter upon the business. He will receive none under six, nor above eight years of age. If they are totally ignorant when they are

delivered to him, so much the better ; for whatever they have learned, they will be obliged to forget it, in order to learn it again in his own way. He declares that the grave, doctorial, magisterial and dictatorial tone shall never insult their ears ; that they shall probably never hear of a cat-o-nine-tails ; and that he shall be nothing else but their guide, school-fellow, play-fellow and messmate. He believes that for the first year, the studies of his pupils will occupy four hours of the day. They will be conducted considerably in the open air ; and the portion of life from the sixth to the twelfth year, will be chiefly occupied by the exercises.

What now, it will be asked, is this reformer of education about to perform ? How does he intend to proceed with a number of boys, for an uninterrupted course of six years application ? And wherein does he differ from the numerous tribe of his predecessors and cotemporaries in the subjects or the modes of puerile instruction ? We shall endeavour to state in a concise manner, the method of the author, as we collect it from his publication.

Education is defined to be the gradual unfolding of the faculties and powers which Providence has bestowed on the human species. Mr. N. will not teach his pupils any new things ; but they will acquire under him the knowledge of old things in a new way. No attempt is made to introduce any thing into the learner ; but merely to develope what the instructor finds in him.

In executing this undertaking, he does not begin with the alphabet and the spelling-book. These are reserved for a more advanced part of the course. His first care is bestowed upon the manner of speaking and the use of speech, with their application to the four orders of human knowledge, 1. our immediate sensations ; 2. our memories ; 3. analogies, and 4. the evidence of other persons. His mode of proceeding with young beginners is thus exemplified. The human body may be the subject of a conversation. They are taught to fix their attention on its external form, not on its internal constitution ; to divide it into trunk and members ; when an object or a part thereof is shown, to name it ; and when the name is pronounced, to show it ;—to understand the connection between two parts of a thing, or between a part and the whole ; to examine the number of every thing they see ; to point out the position or situation of an object ; to distinguish the qualities of objects, especially their form or shape ; to note the vari-

ous functions performed by organical bodies and their parts ; to observe and investigate the use we make of the many things which surround us every where ; to point out the resemblance between two objects presented to us ; to discover the difference between bodies ; and to practise the art of describing things in plain, exact and precise terms. He next makes them acquainted with numbers. Not, however, by the common numerical cyphers, but by sensible objects, such as beans or marbles, and a calculating apparatus of great simplicity, by which he renders them both ready and correct reckoners. The third step he takes is to render the figures and proportions of geometry familiar to his scholars. This he accomplishes by diagrams and models of his own ; and after the elementary parts shall have been thus illustrated and comprehended, he prefers the method of Legendre to that of Euclid, for the remaining branches of the science. The fourth part of this plan, consists in teaching boys to delineate figures, or in other words, to make them proficient in the art of drawing. To make horizontal lines, to divide them into equal parts, to cross them by vertical lines, to form rectangular figures, and progressively triangles, circles, polygons, cones, cylinders and pyramids, will be the tasks of the pupils. And from these exercises they will pass on to the more difficult and exquisite expressions of form in all natural and artificial bodies.

Thus far this bold instructor conducts his little learners, without any ability to read, write, or even say their letters. He will render them good speakers, arithmeticians, geometers and limners, before he introduces to their acquaintance any species of literary performance, even the horn-book. And, when he is about to initiate them into the mysteries of literature, he chooses to instruct them in writing, before they are taught to spell and read. The practice of drawing mathematical and other figures, is an excellent preparation for writing. In the method of nature, writing must have preceded reading ; and as writing existed before there could possibly have been a reader, so in the Pestalozzian plan, the formation and connection of the letters must precede the knowledge of their uses and powers. As soon as these are acquired, spelling and reading accompany writing, and give the teacher an opportunity to unfold the production of articulate sounds, the manner of signifying them by written characters, and of combining the letters

into syllables, syllables into words, and words into sentences, with so much skill as to express the most recondite as well as the most obvious thoughts, in a manner that shall be intelligible to a person who shall be separated by the greatest distance of time and place.

The sixth great object of Mr. N. is to render his boys grammarians. But he roundly rejects all the books of grammar as unfit to be put into the hands of learners. He disclaims the whole of these laboured and erudite compilations as magazines of lumber and trash. He makes a grammar of his own : to consist of three parts, *ideology*, *lexigraphy* and *syntax*. He divides his ideology into four sections, or four classes of words, substantives, adjectives, conjunctives, and super-adjectives ; and banishes all the ordinary parts of speech, as they are termed, utterly from his presence. Thus ideology will make them acquainted with the materials of speech, lexigraphy shall dissect them, and syntax shall employ them.

The seventh department of Mr. N.'s method consists of ethics or moral discipline. Considering all systems of religion as composed of two parts, their dogmas and their morals ; and reflecting that the dissensions which exist between religious societies originate in matters of doctrine, rather than of practice ; he refuses all interference in the articles of faith, or peculiar tenets of any religious sect. But he frames for them a manual of morality, or an ethical catechism, by which they are instructed in the knowledge of themselves, their relations to property, and their dependance on a Creator. The examination of their faculties will lead to a discovery of their rights ; and these will conduct to a developement of their duties and social concerns.

Natural history occupies the eighth place. Instead of making his pupils masters of mere nomenclature, or adepts in any particular classification or system, Mr. N. proposes to encourage in them all manner of attention to the various species of animals, to the changes of the atmosphere, to the different forms of water, to soils, earths and stones of every kind, to the numerous families of plants and vegetables, and to every thing that the face of creation presents to an observing eye. The instructor encourages his scholars to scrutinize every thing ; and in his turn, he explains to them all that is necessary for them to know, concerning the specimens they present to him for his opinion.

The science which follows next in order is chemistry. This he derives from the common processes in the arts, and from the operations going on every day in the great laboratory of nature. And he performs the part of a ready and faithful interpreter in expounding them to his curious and listening audience. The kitchen-fire, the chimney, the boiling of the tea-kettle, a snow-ball, a fragment of ice, or a plate of soup, are, each of them, subjects of useful discussion. The true theory of heat and cold is derived from the observation of ordinary phenomena. With these, artificial experiments will be duly mixed or discreetly interwoven.

Gymnastics or the rules of exercise are then treated of at considerable length. He trains his boys to an exact employment of every muscle, joint and limb. He forms them into companies and sections, trains them to the use of arms, initiates them into tactics, and teaches them the art of defending themselves, their liberties, their possessions and their friends, against assailants and invaders. And he justifies this procedure from a conviction that there ever has been, is now, and always will be a great mass of error, mischief and crime, against which a prudent man ought to provide; and instead of joining with the philanthropists and benevolent visionaries, who are ever judging of man in a sort of abstract state of perfectability such as they *wish* him to be, or as they think he *ought* to be, our author very correctly concludes, that the wiser and safer course is to contemplate him with all his vice and depravity about him, and to guard against him accordingly.

This brings us to his twelfth section, wherein he treats of the learned languages. And in this he rejects the study of the Latin and Greek tongues, as neither necessary nor useful to a rational education, nor to a rational man.— Though he consents to teach them to his pupils, for fashion's sake, as he wears a hat; yet on no account any further than to understand and translate the writings of Cicero, Demosthenes, Homer and Virgil. In explaining his mode of teaching French, the author passes some severe strictures upon Mr. DUFIEF's *Nature Displayed*. But on a point in dispute between rival teachers, we pretend not to interfere.

Musick is treated of in the 13th, poetry in his 14th, and geography in his 15th sections. The most remarkable circumstance relative to the former is, that it shall be vocal,

and uttered without the aid of the gamut ; in respect to the second, he is vehemently opposed to rhyme ; and concerning the latter, he insists that his pupils shall make their own maps, and that he will give them further lessons upon a globe of his own construction.

Lexicology is the knowledge of which he treats last of all. This is intended to settle the right and true meaning of words. The causes of the misunderstandings among men as to language, are referred to, 1. our not examining an object well before we speak of it ; 2. our not calling things by proper names ; and 3. our not knowing the real power of the words we employ to express our sensations and sentiments. He considers that his plan of education would be very defective, if it did not include a chapter or treatise on the *science of words*, or lexicology. In this he attempts to trace compound words to their radicals, and criticises Mr. Tooke for his rage for, and abuse of, etymology.

We conclude by quoting from Col. Duane's letter to Dr. Mitchill, a sentiment concerning this work :

" I hope you have read *Neef's System of Education* ; if not, permit me to send you one, and invite your curiosity to a perusal of it *three times*. This is an apparently whimsical request ; but I have read it six times myself, with an increase of admiration, and a better understanding of the human mind, as well as of the degeneracy of the human intellect for a long course of ages. We shall set the system in motion here this summer ; and if we can only keep it going one year, the nation will have acquired something more precious than the mines of Mexico, or than

" All Bochara's boasted gold  
" Or all the gems of Samarcand."

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*Observations on the means of preserving the Health of Soldiers and Sailors ; and on the duties of the Medical Department of the Army and Navy : with remarks on Hospitals, and their internal arrangement. By Edward Cutbush, M. D. of the Navy of the United States. Philadelphia. Dobson. 1808. 8vo. pp. 336.*

**D**ISCIPLINE has ever been considered a matter of great moment in organising societies of men for spiritual purposes. It is scarcely of less importance in its relation to associations for temporal concerns. To guard

against moral evil, by every sound precaution, is one of the great points of ethical duty. And it no less behoves a person of wariness and foresight to adopt measures of prevention against ills of a physical nature. A sinful state of mind has a near analogy to a sickly condition of body. An escape from the assault of either, is preferable to extrication from their grasp. But whether it is intended to elude these adversaries in the church, or in the camp, it is highly necessary to adopt a corresponding ecclesiastical or medical discipline in both.

On many of the subjects interesting to the health of man, exposed to military accidents, by land and by sea, the author of the present work has published his opinions. They embrace the cases of soldiers as well as seamen. For although Dr. C. belongs to the navy, he has not forbore to give directions for the preservation of health in the army. Among other matters he treats of the selection of men for service; their dress; their accommodations during the winter and while in garrison; their military discipline and exercise; the articles of food and drink composing their diet; of campaigning, and the effects of marching, encampments, and climate, on the health of the officers and men; and of exposure when on guard by night and by day, with other incidents to this kind of life. He also discourses on the health of seamen, with rules for selecting them; on the purity of air, person and clothing; on their ration, and its constituent parts; on the prevention of laziness, despondency, and the consequent disorders; and on warmth, sobriety, and good usage to the crew.

The writer next proceeds to delineate the duty of a surgeon-general of an army, with directions concerning the economy of hospitals, in relation to the duty of the purveyor, apothecary, regimental surgeon, and his assistants. These are followed by various information about the manner of keeping prescription-books, making half-monthly returns of the sick and wounded, about the functions of hospital-assistants, steward, matron, nurses and cooks, with forms for the steward's accounts, to show the receipt of provisions and hospital stores, and their daily consumption.

Having discussed these subjects, Dr. C. turns his attention once more to the navy, and gives an account of the naval hospital established by the American fleet in 1804, at Syracuse, during the war with Tripoli. He treats generally of the medical department; and then particularly of the duties

of a fleet-surgeon; with forms of the different reports which ought to be made, on the health of the men intrusted to his charge. Hospital ships are next treated of, and the specifications of their lists, registers and journals given at large. After displaying the duties of naval surgeons and their mates, and particularly those that relate to preparations for a combat with an enemy, and to exhibitions of their monthly returns of sick and wounded, the writer concludes with an estimate of the quantity of medicines, and other articles belonging to the hospital-department, that will be necessary for a ship of war containing four hundred men, for one year; and a schedule of the receipt and monthly expenditure of hospital-stores, which may also serve as a report to the navy department at the end of a cruise.

On giving Dr. C.'s publication this cursory review, we were impressed in an especial manner with an idea of the man of business. It was highly gratifying to see the regular forms of reports and returns, all prepared for the use of beginners in their several stations. And it was equally pleasant to observe what effectual measures are proposed to introduce frugality into the hospital department, by preventing the waste and embezzlement of its stores. The knowledge of the details of each branch is very extensive. Like a true practical officer, he seems to have formed a resolution to make himself master of the minutiae of his profession. And in Dr. C. we think we behold, not merely the naval surgeon but the medical economist. We could have wished, however, that among his instructions for keeping the holds of ships clean and dry (p. 83), he had recommended the ventilators of our two ingenious countrymen, Mr. Wynkoop of Philadelphia, and Mr. Robotham of Hudson. They are cheap in their construction and manner of working, they occupy but little room, and may certainly be reckoned among the easy methods of expelling foul and introducing pure air. Certificates of the excellence of the former of these, may be seen in our Hex. I. Vol. iii. p. 89; and a description of the latter is inserted in the same Hex. Vol. vi. p. 99. And we were somewhat disappointed in not finding any mention made in the chapter wherein he recommends the apparatus for distilling fresh water from the fluid of the ocean (p. 118) of the very convenient arrangement of the caboose, by the successive labours of his two other ingenious countrymen Mr. J. Lamb, and Mr. George Youle, who have succeeded in procuring a considerable supply of fresh water from salt, with-

out much addition of fuel, enlargement of space, or of original cost in buying and equipping the galley.

It is rather a matter of disappointment too, that a gentleman of Dr. C.'s good sense and inquisitive understanding, should, at this time of day and in the present state of our knowledge, revive the story of destroying the infection of air, by means of acid fumigations. We had imagined that these fallacious and pompous projects of the English and French philosophers, had had their run, and were now becoming obsolete. And little did we expect, that a person of Dr. C.'s discrimination and learning, would have informed the Secretaries of the Navy and of War, in a book expressly dedicated to them, that the extrication of disgusting nitrous and muriatic vapours, (neither of which is fit to sustain the life of breathing animals) into a ship or a chamber, is a process of purification, or disinfection, by which the contaminated atmosphere is rendered more pure and healthy. The deceptions practised in relating the experiments in favour of this project, have been repeatedly stated by us on former occasions. These may be seen by turning to an analysis of the evidence in favour of the nitrous fumigation in our Hex. I. Vol. iii. p. 201; and to an examination of the the testimony in support of the muriatic vapours, in same Hex. Vol. vi. p. 221: in both cases demonstrating their inconclusiveness and fallacy. Other negative statements may be seen in our Hex. II. Vol. ii. p. 101; Vol. iii. p. 443, and Vol. v. p. 91. If it should be alledged after all this, that the witnesses in favour of acid fumigations are very respectable, and therefore worthy of full credit, we reply that the same may be said in favour of the narratives given by HELVETIUS, BERIGARD of Pisa, RAYMOND LULIY, ARNOLD VILLANOVA, and several other persons, who prove with equal credibility, the conversion of iron, lead, and quicksilver into gold. And yet, AFSELIUS, who relates these strange events, (*Chemiæ progressus a medio sæculi VII. ad medium sæculi XVII. Upsal, 1782*) though he thinks there is great reason to doubt the correctness of the statements, in general, at the same time gives his opinion, that to call certain others of them in question, would imply a disbelief of all historical testimony (p. 31).

In this valuable collection, we find *soap* or *potash* recommended to the men on washing days (p. 95); *quicklime* for the purification of water for drinking (p. 110); *white washing with lime*, for the berth-deck, when contagious diseases

appear, (p. 132); the putting of clothing and bedding, as soon as they are removed from the wards, into a large tub of *alkaline ley*, to cleanse them (p. 185 and 191); throwing of lime into the privies, (p. 191); *softening of sea-water by potash*, to precipitate its hard contents, and render it fit for washing and cleansing of linen and all other clothes and clothing, (p. 219). These recommendations evince the writer's correct judgment on the subject of disinfection; and prove his conviction that the powerful aid of alkalies, and not a paltry fumigation with sour vapours, is requisite to render foul things clean and wholesome.

In addition to his own observations and experience, the author acknowledges his obligations to Lind, Trotter, Clarke, Turnbull, Jackson, and some other of the best writers who have gone before him. And it is an amiable trait in his character, that he makes respectful mention of the professors of the seminary in which he was educated.

To the work, is added an appendix, containing directions for acid fumigations, translated from the Italian; an essay on the analysis of mineral waters, from Aikin's dictionary of Chemistry; instructions to nurses and orderly men, for the preparation of teas, broths and diet for the sick; and several other articles, gleaned from various instructive sources, among which is the brief manual of directions for preserving the health of soldiers, addressed to the officers of the American army, during the revolutionary war, by Benjamin Rush, M. D. then physician general to the military hospitals of the United States.

We conclude our remarks on this publication, by recommending to the special attention of our readers, his observations on exercise at sea, as a fair specimen of his talents of observation and composition. This we should have quoted at length, (p. 125 to 132) but our limits would not permit its insertion.

*Transactions of the Society for the promotion of useful arts in the State of New-York. (Continued from page 66, and concluded.*

**I**N pursuing our examination of this instructive volume, we next notice the *essay suggesting a plan to introduce uniformity in the weights and measures of the United States of America*; by Philip Schuyler, Esq. The constitution

of our country has vested in Congress the power to fix the standard of weights and measures. And soon after the meeting of the national legislature, under that instrument, the Secretary of State prepared a report, agreeably to direction, on that subject. No further progress has since been made. Owing to the scientific nature of the investigation necessary to settle the principle by which the standard ought to be constructed, there were but a few who comprehended the subject. And of those who possessed the mathematical information capacitating them to judge, some seem to have been deterred by the nicety, as well as the labour and expense, of constructing a pendulum of the proper length and figure, or of measuring a degree of the meridian with sufficient exactness. Perhaps, indeed, there was a stronger reason for leaving the business untouched. The several States had been colonies of Great-Britain. They had generally obtained from the standards in the Exchequer of the mother country correct imitations of the yard, the bushel, and the pound, with their several multiples and divisions. By the aid of these, the settlers held convenient intercourse with each other, and could buy and sell without any difficulty arising from a dissimilarity of weights and measures. And they were also thereby enabled to carry on trade with their fellow-subjects in Europe, with as little difficulty. In the state of society and of business which preceded the revolution, these thriving settlements in North-America were perfectly enabled to weigh and measure alike, whether they had dealings with their neighbouring colonists, or with their transatlantic brethren.

Nor has the dissolution of the political ties which once connected the two countries, made so much alteration in the relations of commerce as might have been expected. So intimate and extensive (until the late interruptions) has been the mercantile connection between the United States and the British dominions, that the sameness of their weights and measures may be reckoned as one of the great means by which it has been invited and perpetuated. And to a combination of these causes, wherein the inherent difficulty of effecting a change, was coupled with the easy mode of transacting business in the old way, are we to ascribe the reluctance of our government to act upon so important a question. This aversion to adopt any new project, does not appear to be lessened by the reform in the system of weights and measures in France, grounded up-

on the long and tedious operations they have instituted for ascertaining the length of an arch of the meridian. Though the improved methods of ascertaining the lengths, capacities and gravities of bodies, are in full operation on the continent of Europe, and their principles displayed at large to the learned world, there appears to be as little inclination as ever in our government to adopt them. Though we know that a certain millionth part of the arch of the meridian has been received by the French academicians as the standard, and that this standard has been made in conformity to an actual admeasurement of the earth's surface, yet the trifling inconvenience experienced by the people of the United States under their present arrangement, has not induced them to seek or even wish for a change. And even now, when the work is done to their hands, there is no disposition manifested to receive or establish it. Though their grammes, metres and litres often puzzle the English reader, he prefers information by a comparative table or ignorance for want of it, to a radical alteration in the established system of his country.

But, although our government has forbore to act, individuals have not been withheld from speculating on the subject. An ingenious report was prepared a few years ago for the legislature of Pennsylvania. From time to time the remembrance of it has been revived in Congress; and in March, 1804, the gentleman who now holds the office of attorney general, when a member of the house of representatives, made a motion relative to it, before that body. A committee was accordingly appointed, consisting of Messrs. Rodney, Clay, Tenney, Mitchill and Randolph. But, no report was ever made by them. The business was dropped, and has not, that we recollect, been resumed.

Among the gentlemen who have turned their thoughts to the standard of measures, and the derivation of an uniformity of weights therefrom, is our late distinguished countryman, Schuyler. The city of Albany, and the banks of the Hudson and the Mohawk, for a long series of years, witnessed the private enterprize and public services of this citizen. As general in the army and a senator in the legislature of his country, he was conspicuous both during the revolution, and since. He was often quoted by his acquaintance as a man of method and calculation. And it now appears in this posthumous publication, that he had really made proficiency in science. The plan which Mr.

S. proposes, to promote the desired end, is an even cylindrical rod upon Mr. Graham's construction, that shall vibrate seconds of time in the 45th degree of latitude. To allow a ready comparison of the old weights and measures with the new, and to facilitate the reductions of one into the other, he proposes to divide this pendulum or rod into 23 equal parts. The length of these parts are such, that four whole ones and seven-tenths of another, approximate very nearly to the English foot.

The writer of the present memoir thus proposes, that the American unit of length shall consist of 4 and seven-tenth parts of a pendulum rod, vibrating seconds in latitude 45, and divided into 23 equal sections. This he proposes to denominate a foot, and to divide it into ten parts, to be called standard inches, and to divide the inch into ten equal parts, to be called lines, and the line into ten equal parts, to be called points. According to this project, ten of the new points, lines and inches respectively, will be equal to twelve of the old. The new foot will be equal to the old. And he extends his idea to making three feet constitute a yard, two yards a fathom,  $2\frac{3}{4}$  fathoms a perch, four perches a chain, ten chains a furlong, and eight furlongs a mile, as in the common tables of long measure.

If the small fractional difference between the new foot and the old one, should be deemed of any moment, the corrective which Mr. S. proposes, is to take a rod that vibrates seconds in latitude  $44^{\circ}.56'4''$ , instead of latitude  $45^{\circ}$ . Divide this shorter rod into 23 equal parts, and then it will be found that 4 and seven-tenths of them will not exceed the old English foot, more than the two millionth part of an inch. For the application of this standard to superficial and cubic measures, both dry and liquid, as well as to weights, coins, land, and the adjustment of the avoirdupois and troy balance, we must refer to the performance itself (page 45.)

We notice next, *A Sketch of the Turnpike Roads in the State of New-York*, by Benjamin Dewitt, Secretary of the Society, &c. page 190. This is a very valuable summary of the roads authorized by the legislature to be improved upon the turnpike plan, including toll-bridges. By this it appears, that at the date of the memoir, there were 88 incorporated companies, 67 of which were for improving roads, and 21 for constructing bridges. The amount of road stock was upwards of five millions of dollars; and of

bridge stock almost half a million; and the aggregate extent of improved road somewhat more than three thousand miles. Of these, 28 of the roads may be said to be finished. Such exertions made to so good a purpose, evince in the strongest manner, the thrift and prosperity of the country.

A letter from William Thompson, Esq. (p. 120) on the cultivation of hemp upon the drowned lands of Orange county; and another (p. 128) from James Geddes, Esq. on the culture of that valuable plant on the rich soils of Onondago; are worthy of perusal by rural economists, and friends of internal improvement. For a tract *on the Culture of the Vine*, by the late John B. Johnson; for Mr. Bloodgood's *Floating Battery*, and several other compositions, we are obliged, through want of room for further enlargement, to beg the curious to consult this respectable volume for themselves.

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*The Elements of Physiology: containing an explanation of the functions of the human body; in which the modern improvements in Chemistry, Galvanism and other sciences, are applied to explain the actions of the animal economy. Translated from the French of A. RICHERAND, Professor of Anatomy and Physiology, and principal Surgeon of the North in Paris, by Robert Kerrison, Member of the Royal College of Surgeons in London.* Phil. Hopkins and Earle. 1808. 8vo. pp. 464.

WE take the present occasion to lay before our readers the title of this American re-publication of a foreign work, for the double purpose of recommending a valuable performance to the perusal of professional persons, and of contributing our acknowledgments to the enterprising and respectable booksellers who have rendered this service to the public. Every undertaking of this kind is entitled to the encouragement and thanks of the community. And whenever European Medical books are judiciously selected for re-publication in this country, provided the work be correctly executed, and the price restrained within reasonable limits, we shall always hold ourselves bound to employ the best means in our power to make known the merits of such books, and to aid their circulation in all parts of the United States.

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## MEDICAL & PHILOSOPHICAL NEWS.

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### DOMESTIC.

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#### *Moseley on the prevention and cure of Canine Madness.*

A THIRD edition has appeared of the Tract on Canine Madness, and Hydrophobia, published in London some time since, by Benjamin Mosely, M. D. and physician to the royal military hospital at Chelsea. In this he describes at length the symptoms which manifested themselves in a youth who was affected by the dread of water, after the bite of a mad dog, and who died miserably in consequence thereof. He has delineated this case, because he thinks the disease has been but imperfectly described by preceding writers; though if he would examine the cases described in our Hex. I. Vol. v. particularly those in p. 73—80, we are inclined to believe he would alter his opinion.

He next relates an instance of his successful treatment of a woman, who was invaded by hydrophobia, after having been bitten by a rabid dog. He applied *lapis infernalis* to the bitten part, though it had been entirely healed for a considerable time. The stronger mercurial ointment was copiously applied to the neck, throat, legs and thighs. She was ordered an ammoniacal julep containing camphor and valerian-root. In about 24 hours she began to be salivated. The next day, as the quicksilver purged her, its operation upon the intestines was restrained by the chalk-julep, cinnamon-water and laudanum. On this the suspended salivation returned, completely; and with its gradual cessation, the patient got well. The dread of water, however, was recent, and the difficulty of swallowing or the choaking had not come on.

When the bite is fresh, Dr. M. thinks the local treatment may alone be relied on. The caustics he prefers for destroying the injured parts, are *lap. infern.* and *butter of antimony*. Either is better than the hot-iron. Repeated applications must be made, to disorganize the wound to the

bottom. Having thus boldly and promptly extirpated all the morbid flesh, poultices and digestives are to be applied, and a drain from the sore promoted for two or three weeks, or even longer. When the bite has healed and there is no wound, he recommends the destruction of the cuticle and integuments by the immediate application of the *butyr. antim.*; and of the subjacent living parts, by following it up speedily by *lap. infern.* This latter is the *alkaline caustic*.

If these substances cannot be procured to destroy the bitten parts, whether open or healed, he recommends as substitutes, oil of vitriol, aquafortis, spirit of salt, corrosive sublimate, arsenic, common caustic, brine, a strong solution of common salt, or a plaster of quicklime and soap. Or gunpowder may be laid on the part, and fired. Paper, linen, cotton, lint or tow may be burnt on the wound, that no time may be lost.

Where there has been delay in the application of these local remedies, recourse ought to be had to mercury and antispasmodics; and the former of these, if applied in the tardy manner that is customary, is of no use. It must be plentiful and vigorous to be of any service. Calomel, in the first instance, and the *ung. merc. fort.* afterwards, are the two preparations he most relies upon. They may be used in succession or conjointly, according to the urgency of the symptoms. If it runs off by the bowels, the anodyne cretaceous mixture will check it. When the dread of water has come on, it is necessary to proceed with the utmost rapidity, by applying frictions to the neck, throat, fauces, and almost every other part of the body. He also gives his camphorated mixtures before mentioned: and in these remedies rests the prevention and cure.

By attending thus to an early and complete destruction of the bitten part, whether the wound be recent or healed; and by a prompt and free salivation, whether hydrophobia shall have commenced or not, persons bitten by rabid dogs and cats, have been saved from the dreadful state of hydrophobia, and rescued from death after that horrid symptom had appeared. The purulent and salivary discharges may be continued as the circumstances of the case may render expedient, and the condition of the ulcer and of the mouth may require. Under this treatment, Dr. M. gives more than two dozen cases, wherein no hydrophobic symptoms followed rabid bites; and among the statements he makes, there is one cure of actual and another of incipient hydrophobia.

With pleasure we offer this abstract from the copy of this practical work, just received from the worthy author; and lose no time in submitting it to the imitation of American physicians.

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*Bouriat's Meteorological and Medical Summary.*

B. F. Bouriat, M. D. and secretary general and perpetual of the Central Committee of Vaccination for the department of Indre and Loire, has during several years, edited a periodical work, which he entitles "*Précis de la constitution médicale observée dans la département de l'Indre, &c.*" It is a pamphlet of one sheet and an half, published once in three months, under the auspices of the Medical Society of Tours. About thirty numbers are already due; and of these, the greater part of the set, as far as the twenty-fifth, have been politely sent us by the learned and industrious gentleman who prepares them. In a letter to Dr. Mitchill, he has this expression: "I hope, sir, this work will meet the same favourable reception from you, that has been extended to it by the learned societies of France, and the most distinguished physicians."

From the examination of this performance, we are inclined to believe that it is a laborious and faithful register of the weather, as far as observations by the thermometer, hygrometer, barometer, electrometer, and the eye can render it. These are summed up and stated monthly, in a brief and abstracted form, for the department of Indre and Loire.

But Dr. Bouriat does not confine himself to his department in stating and recording atmospherical occurrences. Remarkable storms, meteors, strokes of lightning, inundations, and other memorable events are mentioned, wheresoever they may have happened, within the wide circle of his information.

The most valuable part of the publication, however, is the record it contains of sporadic, endemic, and more especially *epidemic* distempers. His history, for example, of the European influenza of 1804, and his notes on the yellow fever in Spain and Italy, 1805, are specimens of extensive observation, combined with voluminous reading. (Precis. No. v. and xiii.) Occasionally *epizootic* diseases, that is the diseases of domestic animals, are mentioned. It is reproachful,

that the maladies of the creatures that afford us so much of our pleasure and our profit, should be so little attended to among ourselves. We hope that they will soon attract their proper share of regard. Dr. B. and his associates are labouring faithfully to promote vaccination.

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*Uric Acid forms Calculi that may be prevented or dissolved by Alkalies; communicated by D. B. Warden to Dr. Mitchill.*

I send you three or four small stones of half a grain each, which a friend of General Armstrong, Sir Michael Cromie of Ireland, voided by the urinary passage. Mr. Vauquelin, to whom I shewed them, knew instantly, from their colour and form, that they are composed of the uric acid. This I found, from a chemical examination, to be the case: they are completely soluble in potash: the liquor, precipitated by an acid, leaves the uric acid quite pure, which soon crystallizes. When *calculi* are calcareous, Mr. Vauquelin observed, that their colour is whiter, and they have a crystallized appearance. Sir M. C. frequently voided calculi of the first mentioned description, and without pain; though he felt a sensation which indicated their approach; and was in the habit of seizing them with his fingers. General A. informs me his friend has been completely cured by a few doses of Egan's exsiccated soda, the use of which he recommended to him, according to the method mentioned in your abstract of that gentleman's memoir, in the *Med. Repos.* Vol. x. p. 405.

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*Botanical Journal of Paris.*

In October, 1808, appeared in Paris, the first number of the *Journal de Botanique*, edited by a society of botanists, of whom Beauvois, Bonpland, Correa, Delongchamps, Desvauz, De Tussac, Thouars, Hanin, Dubuisson, St. Hilaire, Poiret, Persoon, and Sonnini, are the principal. Their design is to discuss Botany at large, by examining every thing relative to the anatomy, physiology and pathology of plants, as to their classification and description; and without enter-

ing deeply into the agricultural, medicinal and economical uses of vegetables, it is their intention to lessen the dryness and sterility of the science, by dwelling upon the fitness of the different species and their parts, for food, physic, clothing, and the numberless ways by which they may be employed in the arts. We shall probably borrow from this promising work, in our future numbers, some of its valuable materials.

While on this subject, we seize the opportunity of laying before our readers, part of a letter from Mr. Desvaux to Dr. Mitchill, dated Paris, 15th Nov. 1808, which for its politeness and liberality ought to be made known: "Botany is the science to which I am particularly devoted, and in which I intend to labour most for the future. But as it is indispensable to gather the greatest possible amount of materials, I expect from your complaisance as much assistance as your occupations will permit. There are many plants of the United States ready to your hand, that I do not as yet possess. You will oblige me, by sending specimens of them; because I can throw light upon their nomenclature, by means of the Herbarium of Michaux, which we have in Paris. For my own part I am labouring to give a *Synopsis Plantarum* according to the method of M. de Jussieu. This estimable sçavant encourages me in this, and assists me with his counsel, his library and his herbal.

"If, on my part, Sir, I could be useful to you, in case you should want the most rare and beautiful plants of Europe, it would be highly gratifying to me to send you a collection. My species already amount to between 9000 and 10,000, and a great proportion of them are duplicates. I have a predilection for cryptogamous plants, grasses, cypereids, legumes, and in general for all the families wherein there is the most to be done."

If any of our American botanists can make a suitable exchange with Mr. Desvaux, a rich body of well arranged plants will be transferred to our side of the Atlantic; and that labourer in the field of science, be the better enabled to conduct the periodical work in which he is engaged, by recording more fully the discoveries and announcing the progress of this interesting branch of natural history.

*New-York Medical Society.*

At the anniversary meeting of the Medical Society of the State of New-York, holden at the City-Hall in the city of Albany, on the first Tuesday of February, 1809, the following gentlemen were elected officers for the ensuing year.

NICHOLAS ROMAYNE, *President.*

ALEXANDER SHELDON, *Vice-President.*

ANDREW PROUDFIT, *Treasurer.*

JOHN STEARNS, *Secretary.*

LYMAN COOK,

WILLIAM WHEELER,

DAVID W. ARNELL,

JOHN M. MANN,

WESTEL WILLOUGHBY,

NICHOLAS ROMAYNE,

ALEXANDER SHELDON,

JOHN ELY,

JESSE SHEPHERD,

AMOS G. HULL,

ABRAHAM ALLEN,

REUBEN HART,

*Censors.*

*Committee*

*of*

*Correspondence.*

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*COINS collected by American Heroes in Sicily and Africa.*

The American character for valour, although confirmed beyond a doubt by our revolutionary struggle, was greatly extended over the world in the war waged by the Bey of Tripoli against the United States. It was however not a name for enterprize and bravery only, that our countrymen acquired. They made valuable researches into the antiquities of all the regions they visited on the shores of the Mediterranean sea. Among other proofs of the attention paid to these objects, by our brave and patriotic officers, is the collection of ancient Coins, presented by Commodore Rogers to Dr. Mitchill. These were found at Syracuse and Tunis (the site of ancient Carthage.) They illustrate the reigns of Dioclesian, Constantius, Constantine, Licinius, Maximus and several other emperors.

The inscriptions which can be deciphered on some of them, are as follows, viz.

Head of *Dioclesian*, *Concordia Militum.*  
(reverse motto,)

<i>Constantius,</i>	<i>Victori Cæsari.</i>
<i>Constantine,</i>	<i>Virtus Exercitus.</i>
<i>Licinius,</i>	<i>Jovi Conservatori.</i>
<i>Maximinus,</i>	<i>Gloria Exercitus.</i>

These coins being originals collected by our gallant countrymen, in the countries which afford much interest to the antiquarian and the man of taste, are worthy of being deposited in the Cabinet of Natural History, for which they are intended.

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*COSSIGNY'S improvements in manufacturing Gun-Powder ;  
and mode of preventing the explosions of Powder-Mills.*

By the industry and perseverance of Mr. J. F. Charpentier Cossigny, a great body of information on the materials and preparation of gun-powder, has been laid before the public. In 1807, he printed in Paris his "*Recherches physiques et chimiques sur la fabrication de la poudre à canon, contenant des observations et des expériences nouvelles,*" in an octavo volume of 360 pages. And in 1808, he laid before the public a *supplementary volume*, almost as large as the original performance. The author in these two books, satisfies his reader that he has improved the great opportunities he enjoyed of studying the powder-manufacture, to its minutest details. He writes like a practical man, and one who combined scientific information with the skill of an artist. He seems however to be dissatisfied with the government of France, for its neglect of his merit, and forgetfulness of his services. And in a particular manner, attacks the official conduct, and chemical doctrines of Mr. Chaptal. Of the latter gentleman Mr. Cossigny is indeed a formidable rival, and an acrimonious critic. It is however improper for us to enter into the history of the controversies in which the author is engaged with the administration of his country, the Parisian chemists, or the ex-minister of the interior ; the latter of whom especially he belabours without mercy.

Much of these two volumes is of a local and personal nature. But the most important caution we observe, relates to the powdering of the charcoal, brimstone and saltpetre in their distinct forms, and mingling them afterwards in their pulverized state, instead of pounding or mashing them in their coarse condition all together. He recommends this mode of preparing the ingredients, for the purpose of avoiding explosions in the powder-mills. He contends that these terrible accidents are, for the most part, *owing to the coerced evolution of heat from the strong mechanical action of rollers or pestles upon lumps of charcoal*, and not to the collision of iron nails, flinty gravel, or any thing of that sort. He declares that he knows the fact from two observations, "that lumps of charcoal subjected to the pressure of a copper cylinder upon a wooden platform, took fire of themselves, (p. 165 and 200) when there was neither a nail, a flint, or any thing like them at all concerned." He speaks of this fact with the fullest confidence in various pages of his two books, and grounds thereon many considerations relative to the accidental blowing up of the powder manufactories, and the spontaneous burning of houses, ships and cities. Having thus been an eye-witness of the production of fire in pieces of charcoal, by hard compression, and without the instrumentality of flint, iron or any analogous substance, Mr. Cossigny recommends that this dangerous material should be powdered by itself and not in mixture or combination with the other ingredients. In this case, if fire should be elicited by the vehemence of the pressure, the charcoal only will burn, and of course there will be no explosion. When afterwards, the sulphur and nitre already powdered, are presented for incorporation with the fine carbone, the friction necessary to unite them into a uniform mass, is too gentle to cause the least danger of striking fire. This is his capital practical improvement; and he affirms, that not a single explosion happened in the Isle of France, after (in 1781) this distinct mode of preparing the materials was adopted, p. 166: whereas in Old France, where the old method prevailed, it was computed that out of eighteen powder manufactories, three blew up annually, page 165. In his supplement, p. 214, he states, that this extrication of fire is increased by stormy weather and an electrical state of the atmosphere.

The following fact which Mr. C. quotes from the *Annales de l'Architecture, des arts libéraux, &c.* has such a con-

nection with the production of fire in charcoal, by compression, and in the spunk of the little pneumatic machine by condensation, that it merits a translation : " The coal-burners of the Pyrenean mountains amuse themselves a-nights, by making a small ring of willow, and laying it on the stump of a tree, then spitting in the middle of it, and putting a piece of charcoal on the top : this being done, they give it a heavy blow with the poll of the axe, and thereby *produce a detonation, accompanied with light.*" p. 209. The fact is curious, and of great importance in a scientific, as well as economical point of view.

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*Device on the Ticket of Admission for Students of Medicine into the New-York Hospital.*

The Governors of the New-York Hospital, since the purchase of a library for the use of the students who frequent it, have caused a ticket of admission to be executed, of which we offer a description to our readers. As something ornamental was wanted to fill up the central part of the piece, it was conceived that if novelty and taste could be united in expressing a medical transaction, or an event sufficiently alluding to medicine, such a kind of device would answer the purpose. Accordingly the little ornament occupying the middle of the plate, designed by Mitchill, and delineated by Tisdale, was agreed upon by the corporation.

It is intended to represent APOLLO destroying the serpent PYTHON; whence arose the Pythian games celebrated in Greece to the honour of that deity. The learned reader will instantly recollect the story in the first book of *Ovid's Metamorphoses*; and remember the transaction to have been in Egypt, on the bank of the river Nile. This ancient allegory is allowed by the philosophical antiquarians to be replete with physical truth, and literally to signify the dissipation or destruction of pestilential or putrid exhalations by the solar rays, in drying the face of the earth. The application of such an interpretation, of such an allegory, to the condition of any sea-port town in the United States, and to the infirmaries established there, is sufficiently obvious; especially since plague and endemic distempers of a pestilential type are become so frequent. The valley

of the Nile, on the west side of which are seen the pyramids, terminates in a ridge of rock which forms one of the cataracts of that river; and in the back ground are seen the clouds hanging over the mountains of Abyssinia.

As to the figure of Apollo, the artist had in his eye the description of that deity, as given by *Homer in the first book of the Iliad*, where "he twang'd his deadly bow" to destroy the Greeks by plague. And thus the allegory of Homer is introduced, together with the allegory of Ovid; shewing that solar influence according to the force, duration and manner of its exertion, can either *destroy the python*, that is, exhaust the sources of pestilential vapours, or *destroy the Greeks*, that is, generate plagues to the annoyance of mankind. In this manner both the allegories speak the truth, and clearly express that the rays of the sun do, in some circumstances, extinguish noxious vapours, and render a spot or country healthy, and under other circumstances contribute to their formation and the consequent insalubrity of a region or place.

Regard was had in this figure also to able critical remarks on the peculiar beauty of Apollo, by Mr. *Spence, in his Polymetis*. The eye is accordingly made the radiant point. The bow is added to accommodate the common ideas, that this deity shoots with that instrument. And further to countenance this popular belief, some of the rays of light, passing in the direction of arrows from the bow-string, are barbed, or made to take on the sagittiform action and character.

The words *Pugnatum est arte Medendi*, are taken from the speech of Æacus to Cephalus, wherein he eloquently describes the plague of Athens, in the seventh book of Ovid's *Metamorphoses*.

The antiquarian can scarcely forbear to derive from the allegory of the python, the *representation of medicine by a snake*.

*Translation of the Count Lacepedes' letter to D. B. Warden, &c. concerning the Fossil Bones, presented to the National Institute by the President of the United States. Dated Paris, 1st Sept. 1808.*

SIR,

I hastened to communicate to the Institute, in their sitting of Monday last, the letter which Mr. Jefferson was pleased to address, and which you had the complaisance to deliver to me.

The Institute, penetrated with gratitude for this new mark of interest which its illustrious member has manifested, has resolved that an expression of thanks shall be solemnly addressed to him by its proper officers. It has also engaged me to testify to Mr. Jefferson the value it attaches to his attention. The Institute has decided, that the fossil bones and other objects of natural history, which Mr. Jefferson has had the goodness to put at its disposal, shall be placed in the Museum of Natural History; the only place where the public can conveniently and usefully examine this fine present of Mr. Jefferson.

In consequence of this decision of the Institute, I shall immediately make known to my colleagues of the Museum, what you have communicated to me, Sir, concerning the arrival of these Bones; and as they come by the river, from Havre, and are, by their nature, susceptible of being injured, perhaps you may think proper to debark them at the bridge of Austerlitz, at the northern gate of the garden of plants, across which these precious objects can be easily transported to the apartment destined for their reception.

Accept, Sir, the new assurance of all the sentiments you merit, as also the renewal of my thanks for all that you have been pleased to communicate to me.

I have the honour to salute you.

Signed,

COUNT DE LACEPEDE.

*Monsieur Warden, Secretary of the American Legation.*

P. S. I shall have the honour of sending to you, according to your permission, my answer to your Illustrious President.

VOL. VI.

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*Kingsess Botanical Garden.*

In a former volume, we had occasion to mention this establishment of one of the early and meritorious botanists of our country (*Med. Repos. Hex. II. Vol. v. p. 302*). We observe that the Bartrams, father and son, descendants of the indefatigable man, who laboured for the royal society of London, and for several scientific persons in Europe, have since that time printed a catalogue of the American indigenous plants growing under their care, and within their inclosures, in the neighbourhood of Philadelphia. Of these we observe that they enumerate 356 shrubs and trees, 635 herbaceous plants, 69 grasses, 20 palms and ferns, 46 mosses, and 17 funguses, making in the whole 1143 species, besides unnumbered varieties of native vegetables, already cultivated in the garden of Kingsess. Their catalogue, which was published in 1807, contains also, the names of many exotics, thriving in their grounds.

This establishment, it is said, was begun about fourscore years ago, (1727) by the elder John Bartram, at a time when there were no establishments of that kind in Pennsylvania, if any in the Colonies, except that of Dr. Clayton, in Virginia. Kingsess garden is situated on the west bank of the Schuylkill, four miles from Philadelphia, and comprehends about eight acres. The mansion and green houses are situated on an elevated spot, whence there is a gradual and easy descent to the river. On both sides, the country swells into hills of moderate height, and adds much to the convenience and beauty of the garden. From this delightful spot, the winding course of the Schuylkill, its extensive meadows, and highly improved farms, for many miles, above and below; the junction it forms with the Delaware, and the latter crouded with vessels, going to and from the city, are objects plain in sight, and upon which the eye dwells with singular pleasure. Beyond this, the Jersey shore terminates the view, and contributes with the other objects to give extent and variety, as well as richness to the scene.

Several of the articles named in this list are but lately discovered, and have not yet been mentioned in transatlantic publications. These are named in the most proper manner that the authors could devise. We look for the corrected and enlarged edition they promise.

*Manufacture of Vermicelli and Macaroni, in the United States.*

The extensive foreign commerce of the United States, has encouraged the manufacture of some of its native productions, chiefly for exportation. The surplus of our bread-corn and flour has long been sent abroad, to exchange for the rum, sugar and coffee of the West-Indies. But it is not so generally known that a considerable portion of wheat has for several years, been converted into Italian pastes. These are called Macaroni and Vermicelli; and though not very extensively eaten in the United States, are in great demand in the French and Spanish American colonies, and in the East-Indies.

Besides several smaller establishments, for the preparation of these nutritive articles, in New-York and elsewhere, Mr. Sartori, formerly our consul at Rome in Italy, has erected a manufactory upon a large scale, at Trenton, N. J. This gentleman begun his operations in 1802. He encouraged the emigration of Italian workmen to assist him in carrying it on. He made experiments on American wheat, for the purpose of converting it into that gritty substance, called *Semolina*, out of which these pastes are manufactured in Europe. *Semolina* is a coarse or harsh powder, which bears the same relation to wheat, that hominy or rather grits bears to maize. But Mr. S. found the American wheat too soft and powdery to assume the form and consistence of *semolina*. By degrees, however, he overcame this difficulty, and made his pastes so good, that in 1805, they were pronounced in Havana equal to those of Italy.

His business had grown to such a size, that when the embargo was laid in Dec. 1807, Mr. S. had on hand 214,800 pounds weight of these pastes, which he valued at \$35,000. And so trifling was the consumption in the country, that during a year, as he stated in his memorial to Congress, in Dec. 1808, his domestic sales at the manufactory amounted to no more than \$72. At the time that government found it necessary to impose that restriction upon our commerce, Mr. S. believed he would soon have been able to export to the amount of 80,000 or 90,000 dollars worth per ann. which would have brought a profit of 400 or 500 per cent. on the prime cost of the raw material. With the restoration of freedom to the ocean by the belligerent nations, the exportation of wheat in these forms, may be renewed to the full extent of the market.

*Circular letter of the Medical Society of the State of New-York, to the County Societies. Signed by Nicholas Romaine, M. D. President, and John Stearns, M. D. Sec'ry.*

The Medical Society of the state of New-York, view with much satisfaction the organization of the several Medical Societies of the counties, by virtue of the law of the 4th of April, 1806, for regulating the practice of Physic and Surgery; and they entertain no doubt that due exertions will be made by every incorporated Medical Society, to satisfy the just expectations of the legislature and of the public, respecting these institutions.

This law not only contemplates the establishment of such regulations, in the practice of physic and surgery, as may give respect to the medical profession, and redound to the public good, but tends to promote the knowledge of the healing art, by exciting to new investigation, and by encouraging a professional education. The Society do not doubt but that the powers with which the county medical societies are invested, will be exercised with moderation, and that nothing will be done to give offence to the public: they will recollect that MEDICINE has been justly considered one of the liberal professions, and that this character can be supported only when it is exercised on principles just and liberal.

The medical society of the state, at their first institution, deemed it expedient to invite their members to such scientific investigation, as would be interesting to the profession, and important to the public.

In a new country, many of whose resources are still unknown, beneficial effects must result from favouring investigation and scientific researches; and though the pecuniary means of the society have been limited, yet they have offered premiums to encourage such enquiries as might be useful and interesting.

Few exertions have yet been made to examine and record the various productions of vegetable nature throughout the state; nor has much been done to investigate the several objects connected with the mineral kingdom, with the formation of the earth, and the aspect of its surface.

These subjects the medical society of the state earnestly recommend to the attention of your society: and they make

no doubt that a spirit of investigation and research will be duly encouraged.

As the medical profession can only be respectable in a well informed community, and as the ignorant and illiterate are the only dupes of empiricism, the county medical societies will see the usefulness of exerting their influence to promote education, and of uniting their efforts with the Regents of the University for such purposes.

The science of MEDICINE comprehends almost all the sciences and useful arts which contribute in some form or other to preserve health, and to prevent and cure diseases; it is, therefore, requisite that the county societies should unite their efforts with the Agricultural and other societies of the state, to aid in their labours the promotion of the arts and the public good.

It is also important that the medical societies should collect and record such historical facts as are connected with the settlement of their respective counties, and all such other circumstances as will elucidate the history of the state.

Whatever relates to the causes, the nature and the cure of diseases, will obviously claim the serious attention of every county society; and they will no doubt invite their respective members to the due exercise of their professional duties, as well as to those observations which may contribute to extend the usefulness and add to the importance of the profession.

The medical society of the state cannot conclude this circular communication, without affording assurances of their perfect disposition to promote the respectability of the several county societies, and to exert all their efforts to support the dignity of the medical profession.

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*Warden's Translation of Professor Mojon's Physiological Laws.*

Our learned friend, D. B. Warden, has lately, for the purpose of improving himself in a knowledge of the Italian language, as well as in physiological science, translated a small work, consisting of 118 pages, 8vo. and entitled, "*Leggi Fisiologiche redotte da Mojon. Prof. &c. dell' Università di Genova.*" It embraces most of the important facts interspersed throughout various treatises on this sub-

ject, and might be useful to students, and even to those who have a considerable acquaintance with physiology. It is to be hoped some bookseller will undertake the publication.

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*Philomatic Journal of Paris.*

The Philomatic Society has resumed the publication of their Monthly Review. It is named *Bulletin des Sciences*. The form is 4to. Plates are annexed, when necessary. The editors, who are selected from the society, by its own members, propose to announce, before any other Journalist, discoveries and experiments; and generally to describe whatever is new and useful in the sciences and arts. The price is 15 francs per annum. A number is composed of two sheets. This Journal first appeared in July 1791, and was interrupted in March 1805.

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*Intensity of Magnetic Attraction.*

The volume published by the Society of Arcueil, contains a memoir of Messrs. Humbold and Gay Lussac, on the intensity and inclination of magnetic force, founded on observations made in 1805—6, in France, Switzerland, Italy, and Germany. Supposing the intensity of magnetic forces under the magnetic equator to be equal to 10,000, it is, at Berlin, 13,703; at Paris, 13,482; at Lyons, 13,334; at Milan, 13,121; at Rome, 12,642; at Naples, 12,745. By a very exact method, these gentlemen have established, that the magnetic force does not sensibly vary during the 24 hours, and that it is not influenced by the high chain of the Alps.

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*Anecdote of Dr. Gall.*

Mr. Warden being at dinner one day with Mrs. Helen Maria Williams, in company with Dr. Gall, was informed by him that he had commenced an extensive work, to contain a full developement of his system, and a defence of his dis-

coveries and observations, which will occupy three or four folios. He proposed to publish it in French and in German. It appears that the report of Cuvier, induced him to commence this labour, which otherwise he might have postponed for many years. Many of the engravings are prepared, and are very elegant.

He expressed a strong wish to visit England and the United States; but unfortunately for him, he neither reads nor speaks the English language.

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*Decomposition of Boracic Acid.*

Gay Lussac and Thenard have discovered a method of decomposing the Boracic acid; which is found to consist of oxygen and a radical, that seems to hold a place between sulphur and phosphorus. In their report on this subject, to the Institute, they made no mention of the proportions of the radical and oxygen, but it appears that the discovery admits of no doubt, as Mr. Berthollet proposes to announce it in his preface to the French edition of Thompson's Chemistry.

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*An extraordinary talent for acquiring languages.*

A remarkable instance of memory, assisted by quick perception, and great industry in the acquirement of languages, is afforded by Aaron H. Palmer, a native and resident of New-York. Few persons appear to have attained such various and extensive acquaintance with both popular and learned tongues. He is, for example, reputed to be tolerably well acquainted, in addition to his native tongue, with French, Italian, Spanish, Portuguese, Dutch, German, Danish, and Swedish, among the languages of modern Europe. He has studied with assiduity Latin, Greek, and Hebrew, with the cognate dialects of the latter. And among the Asiatic languages, he has made no small progress in Persian, Arabic, Sanscrit and Chinese. To the latter of these he has paid so much attention, as to have made an analysis and developement of the elementary characters employed in the complicated writings of that peculiar people. Mr. P. con-

siders these literary attainments, very properly, not as the ends of study, but merely as the means of pushing his inquiries more profoundly and extensively into the departments of history, poetry, and science. From such proficiency in American, European, and Asiatic literature, at his early period of life, much may be expected from him, when he shall have had sufficient length of days to enable him to draw from the different nations, by means of their languages, the stores of knowledge they contain, and to transfuse a valuable portion of them into our own.

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*Additions to the Plants at Elgin Garden, near New-York.*

A large collection of most valuable plants, natives of South-Carolina, from Mr. Fraser, have lately arrived in a state of high preservation, at Elgin Botanic Garden, that ornament of Manhattan isle. Another collection has also been sent to this institution, by Mr. Stephen Elliott, of Savannah, a gentleman who has devoted much attention to Natural History, and particularly to the vegetable productions of his native state.

From the Botanic Garden of Paris, the indefatigable proprietor has also received a numerous collection of seeds and plants, for which he is particularly indebted to Mr. Thouin, the learned professor of agriculture at the *Jardin des Plantes*.

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*English Improvements in Working Mines of Iron-Ore and Coal.*

The following instructive hints from Mr. T. Dugard, surgeon at Shrewsbury, in England, to Dr. Mitchill, may possibly be serviceable to those who are concerned in raising coal and iron from the bowels of the earth, on this side of the Atlantic.

“ Being situated in the neighbourhood of Colebrookdale, and of course a considerable mining country, I have taken the liberty of sending you an account of an improved mode of getting coal and iron ore. It was first practised in England about 12 years ago, near this town, by my friend Mr.

W. Reynolds, the first iron master in the county, and has since been adopted by others.

"The coal and iron ores with which this county abounds, lie in strata, and generally speaking, the latter superincumbent on the former. Where the ore is known to be within thirty feet of the earth's surface, instead of sinking a shaft in the common way, a quarter of an acre or thereabouts is chosen, and labourers employed to remove the soil, &c. with barrows, until the ore is exposed, which is generally in detached pieces of unequal sizes, imbedded in clay or shistus: it is then picked out and sent to the furnace, and when it is removed, the coal is got and headings are struck horizontally under ground from the face of it in different directions, some of them for a mile and upwards. Colliers, or miners, are employed in working the headings or openings, who send it to the open space, by small iron wheeled carriages, which run in rail roads, made of the same metal, each carrying about 5 cwt. drawn by boys, or where it will admit, asses. The coal, &c. is indeed in the same manner brought to the bottom of coal pit shafts, but the advantages in this new manner are many; among them you will easily perceive is the time saved in not having to draw the materials up a perpendicular shaft, (a very slow operation); also that great one of getting the minerals by people uninstructed in mining (as far as the open work or quarry, if I may so call it, extends) as they have less wages, about 18s. or 20s. a week, and do more work in the day. A collier will frequently get 2s. 6d. or 3s. in less than four hours, when bread-corn sells at 8s. or 8s. 6d. the strike of 38 quarts upon the average. Various earths, clays, and pyrites are by this improvement, found to pay well for the getting, which never are in the old way. At one of these places has lately been erected a manufactory of Soda, by the decomposition of muriate of soda, which is effected by the sulphuric acid afforded by the martial pyrites!"

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*Account of a curious epitaph on Dr. Lord, a list of the Officers of the Connecticut Medical Society, &c. communicated by Dr. Richard Wait, of New-London, (Connecticut) to Dr. Miller.*

That stones vegetate, or grow in the manner of plants, appears to have been an ancient and forgotten hypothesis, but revived by Tournefort, a Parisian, who published a de-

scription of the grotto of Antiparos, about the year 1700, (an abstract of which is given in some of the British Magazines) in which he promulgated his theory, supported by a variety of arguments and observations. In the 242d page of the Rev. Dr. Trumbull's History of Connecticut, the following passage occurs: "At a General Court, in Hartford, March 11th, 1658, a Troop of thirty Horsemen was established in Connecticut, and Richard Lord was appointed Captain. This was the first in the Colony." Captain Lord was a Physician and one of the Council of Connecticut. To the *integer vitæ scelerisque purus* of the poet, he added sound understanding, constitutional piety, and great self-denial. He lies buried under a plain slab of coarse stone, very much broken and defaced, in an old grave-yard in this city. The inscription on his monument, copied *ad unguem*, will amuse you.

"An epitaph on Captaine Richard Lord.  
deceased May 17. 1662——ætatis svæ 51.

The knight starre of ovr cavallrie lyes here  
And to y<sup>e</sup> state a covnsellovr fvll deare  
And to y<sup>e</sup> trvth a freind of sweete content  
To Hartford towne a silver ornament  
Who can deny to poore he was releife  
And in composing paroxysmes was cheife  
To marchantes as a patterne he might stand  
Adventring dangers new by sea and land."

For this epitaph, the tribute of no "venal muse," I feel a degree of religious veneration, and have preserved the spelling of the original, with the scrupulosity of an annotator on Shakespeare. In deciphering it, I took notice, that some of the letters, (particularly those which were most covered with earth) instead of being hollow, as they must have been at first, being excavated by the chissel, had become prominent, and stood out from the surface of the stone, in basso-relievo. Will not this fact go far in proving the definition of Linnæus (as generally quoted) to be strictly true? "Stones grow, vegetables grow, and live, animals grow, live, and feel."

C.—— G.—— (who lost an arm in attempting to escape from Newgate-prison, in this state, some years since) is practising medicine in this vicinity. He is very popular with

the great vulgar and the small ; is said to have cured ill-conditioned and even cancerous ulcers ; his remedy is the ashes of the poison ivy. This man is growing rich, whilst our scholars, whose motto is, *Odi profanum vulgus et arceo*, experience the *res angusta domi*. My best wishes attend your valuable and extensively circulated Journal.

The Officers of the Connecticut Medical Society for 1808, were—

John R. Watrous, M. D. President,  
Mason F. Cogswell, Vice-President,  
William B. Hall, Treasurer,  
John Barker, Secretary.

For 1809, are, Drs. Watrous, Cogswell, and Barker, as in 1808. Timothy Hall, Treasurer.

The Society are about publishing a volume of their manuscript pieces.

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*Philadelphia Medical Society.*

At an Election held on the first day of February, 1809, the following Officers were chosen for the ensuing year.

Benjamin S. Barton, President.

Philip S. Physick, }  
Nathan Chapman, } Vice Presidents.

Benjamin S. Barton, Orator.

Samuel Stewart, Treasurer.

James C. Bronaugh, }  
Walter Channing, } Curators.

Joseph Klapp, }  
Samuel Benezet, } Corresponding Secretaries.

James Smith, Recording Secretary.

## FOREIGN.

*A Description of the Apparatus by which the experiment on the decomposition of Potash by Iron, has been repeated at the Royal Institution, in London.*

Phil. Mag. No. xxxi. p. 276.

THE Apparatus consists of a common gun barrel curved with one large, and one small curvature, and passed through a portable furnace, to which the pipe of a pair of bellows is admitted through an aperture at its side. The curved part of the pipe hangs downwards: to one of its ends an iron tube of about the capacity of two inches, having a ground stopper, is adapted, for containing the potash, which flows out of it, through a very small hole at the lower end. To the other extremity of the bent barrel, a tube of safety is fitted, containing a little mercury or naphtha, to prevent communication with the outer air.

In the experiment, iron turnings, put into the barrel so as to fill a part of the lower portion of its curve, are heated to whiteness; the potash is then slowly fused, and flows on the turnings, where it is decomposed; and its base is found condensed near the other extremity of the barrel.

The proportions from which the best results have been obtained, are about  $2\frac{1}{2}$  parts of iron turnings to  $1\frac{1}{4}$  parts of potash.

In order to the compleat success of the experiment, the whole apparatus should be perfectly dry, clean, and impervious to air; the turnings free from oxidation, and the potash very dry; which last is effected by heating nearly to redness. Pure or crystallized potash in its usual state of dryness contains water enough to occasion the failure of the experiment. The tube containing the potash should be surrounded with ice, until the iron turnings are white hot; and that part of the barrel where the metal of the potash sublimes, should also be kept cool during the whole process. The barrel should be carefully luted; and it is proper to examine the lute after it has been exposed to a red heat, in order to repair any cracks which the fire may have occasioned.

At the commencement of the decomposition, Hydrogen gas is evolved, and continues to come over during the whole

of the process. Towards the end of the experiment, a very intense heat should be continued for some minutes, to drive off the last portions of the metal of potash, which adhere to the iron turnings with great obstinacy.

[*Lon. Athenæum.*]

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*Extract of a letter from Mr. Gibb, Bolton, Lincolnshire, on Capital Operations on the Pregnant Subject, and Urinary Calculi.*

In your Journal for April last, the Inquirer No. XIII. requested information concerning capital operations performed on the pregnant subject.

About eight years ago, at the infirmary of this place, I amputated a leg, above the knee, of a married woman, in the fourth month of pregnancy, who was afterwards safely delivered at the usual time. The disease was white-swelling of the knee, of four years standing, but she was so anxious to have the operation performed, that she concealed her situation.

In answer to his 4th query, on urinary calculi, stone is so rare a disease in this town and neighbourhood, that, in fifteen years, I only know of one case in our circuit, where it was necessary to perform the operation of lithotomy, and not more than three or four cases where the calculi passed by the urethra in small pieces. We, almost all of us in the town, drink rain-water from the tops of the houses, kept in cisterns made of brick and mortar, or in water-tubs made of oak. In the country the water most used for culinary purposes and drinking, is in general rain-water, collected and retained in pits made for that purpose in the pastures. The soil is generally strong clay, otherwise a light silt that does not long retain the water.

[*Ed. Med. & Sur. Journal.*]

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*Extract of a letter from Mr. P. Cullen, Sheerness, on the cure of Varicose Veins, by the Ligature of the Vena Saphena.*

As, perhaps, it may be of general utility, I beg leave to acquaint you, that I have succeeded in curing two cases of

varicose veins of the leg, by tying the vena saphena. One was attended with ulcers of the leg, in a man of about 30; the other was not, and in a man of about 24 years of age. In both, the cure was perfectly complete, and the disease had been of some standing.

The place chosen for the operation was on the trunk of the vena saphena, three or four inches above the knee. I laid the vein bare by a small incision, passed a ligature under it, and tied it of a sufficient tightness to interrupt entirely the passage of the blood, and obliterate it. The ends of the ligature were left hanging out of the wound, which was dressed with adhesive plaster. On the third or fourth day, the first dressing was removed, and a simple dressing applied, which was done every day, till the ligature came out, which it did of itself on the twelfth or fourteenth day, cutting its way through the substance of the vein completely. After this the wound healed immediately. As long as the ligature remains, the patient should be confined to his room, and the limb kept in an horizontal posture.

The effect of the operation is soon discernible. First by a sinking, or diminution of the swollen knotty vein, and a kind of tickling sensation which is felt around the ankle, described by the patient as if a *mouse was creeping over it*; an indication of the blood forcing some other passage, most likely through the venæ comites, or internal veins. When the cure is completed, the limb returns to its natural size, loses its unwieldiness, and becomes, like the other, free and easy in all its motions. At least so it happened in these two instances above mentioned.

I should be very glad to know if any other of your correspondents have attempted this, and with what success.

[*Ibid.*]

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*Remarkable Instance of Parturition.*

The public newspapers recorded the following birth in the month of May last:—At the poor-house in Stoke-upon-Trent, Staffordshire, Hannah Bourne, a deformed dwarf, measuring only 25 inches in height, was, after a tedious and difficult labour, safely delivered of a female child, of the ordinary size, measuring 21 inches and a half, being only three inches and a half shorter than the mother. The child was in every respect perfect, but still-born; the mother is likely to do well.

[*Ibid.*]

*New Medical and Surgical publications.*

Dr. Adams is preparing a new edition of Mr. Hunter's Treatise on the Venereal Disease. The object of the work is as follows. The text will be preserved without the smallest alteration. A long commentary will be added to the introductory chapter. Prefaces will precede, or commentaries follow, those chapters which have been thought obscure, or in which the doctrines have been disputed. The few points in which the commentator has differed from Mr. Hunter, (none of which materially affect the doctrine) will be stated, with the reasons for such difference. That a work so necessary for every practitioner may be as extensively circulated as possible, the publishers have agreed to comprise the whole in one octavo volume, on as easy terms as the bulk of the materials will admit.

Dr. Kentish, of Bristol, Eng. has formed an establishment where the Faculty may order heat or cold, in any proportion, to be applied to a patient, either locally or generally; he has also published an Essay on Warm and Vapour Baths, with hints for a new mode of applying heat and cold for the cure of Diseases, and the preservation of health, illustrated by cases.

Dr. Stock, of Bristol, has undertaken a life of the late Dr. Beddoes, with the approbation of his family and friends.

The long expected Reports of the Preventive Medical Institution at Bristol, have been left, by the late Dr. Beddoes, in some degree of forwardness. They will be completed and published, as soon as possible, by Mr. King and Dr. Stock. The former of these gentlemen has been surgeon to the institution from its first commencement, and the latter has been connected with it since the month of March, 1804.

Mr. Macartney is about to publish a small work, on the relations between external and internal parts, by which the situation of any important blood-vessel, nerve, &c. may be precisely ascertained in the living body. The subject will be illustrated by plates, and accompanied with practical and surgical observations.

Preparing for the press, and speedily will be published, a **SYSTEM OF SURGERY**, in 4 vols. 8vo. by **JOHN THOMSON**, M. D. one of the Surgeons to the Royal Infirmary, Professor of Surgery to the Royal College of Surgeons, and Regius Professor of Military Surgery in the University of Edinburgh. This work is intended to exhibit a concise view of the present state of the principles and practice of Surgery, illustrated by numerous historical and critical remarks; and will contain full and accurate references to the best and most original sources of information, relative to the Anatomy, Pathology, symptoms, and treatment of Surgical Diseases.

[*Athenæum.*]

Speedily will be published, **A SYSTEM OF SURGERY**, in 4 vols. 8vo. by **JAMES RUSSELL**, F. R. S. E. Fellow of the Royal College of Surgeons, one of the Surgeons of the Royal Infirmary, and Professor of Clinical Surgery in the University of Edinburgh.

[*Ibid.*]

Dr. Forbes, of Edinburgh, is engaged on a translation of Pliny's Natural History, with scientific and critical notes and illustrations: a life of the author, and a preliminary dissertation on the origin of Natural History, and on its progress and gradual improvement. One great object which the translator will keep in view, is to accommodate Pliny's descriptions to the nomenclature of Linnæus. The work will extend to six or seven volumes in octavo.

[*Ibid.*]

On the first of October, will be published, "Anatomico-Chirurgical views of the nose, mouth, larynx, and fauces, with appropriate explanations and references, by Mr. J. J. Watt, surgeon." The engravings will be four in number, containing six views of the parts, of their natural size, and accompanied with the same number of outline figures of reference, with an additional anatomical description of these organs, by Mr. W. Lawrence, Demonstrator of Anatomy, St. Bartholomew's Hospital.

[*Ibid.*]

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